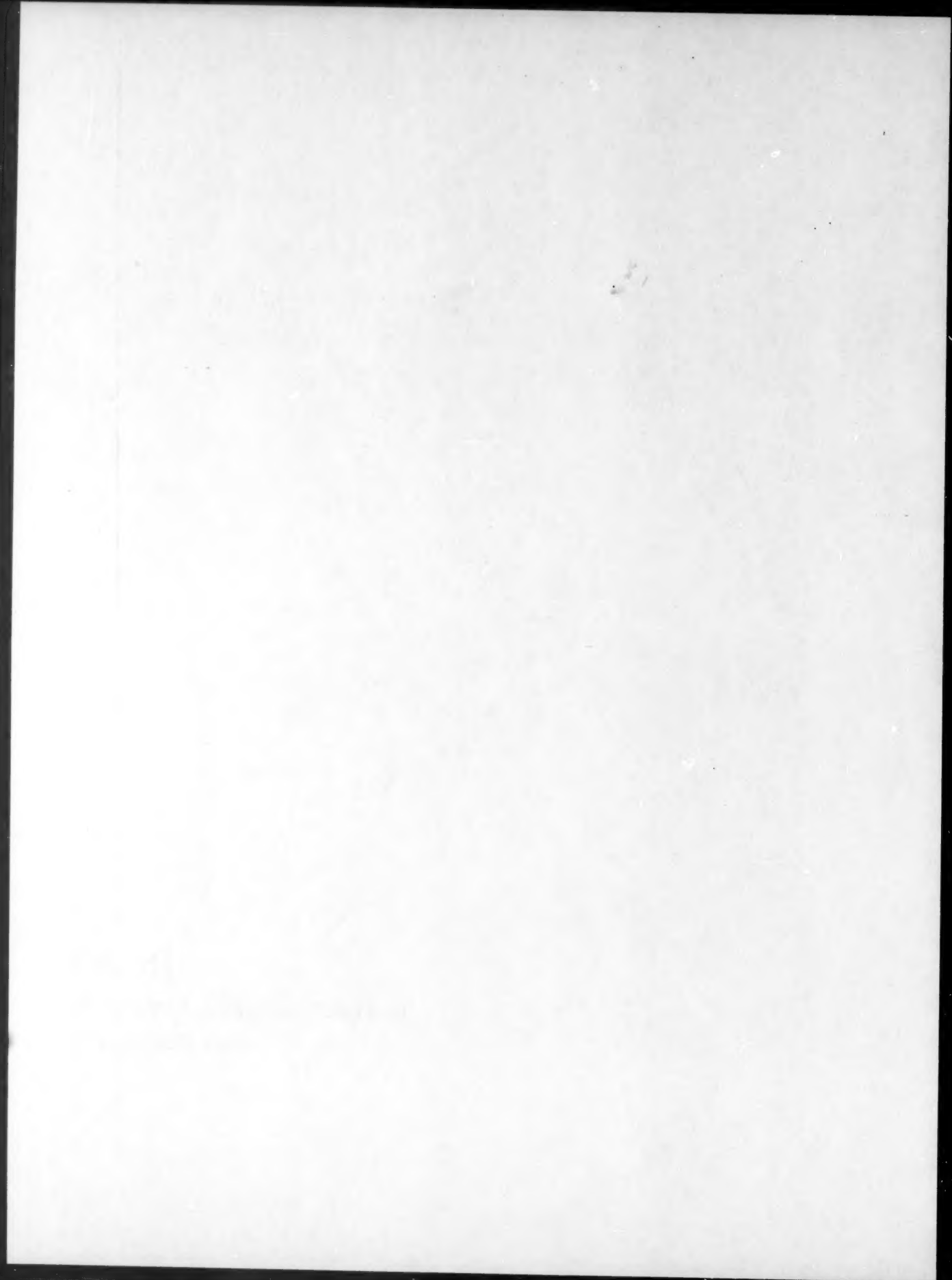

INDEX

DOKLADY PHYSICAL CHEMISTRY

Volumes 220-225, 1975



DOKLADY PHYSICAL CHEMISTRY

Volumes 220-225, 1975

(A translation of the Physical Chemistry section of Doklady Akademii Nauk SSSR)

A

Abaulina, L. I. - 409
 Abkin, A. D. - 532
 Ablov, A. V. - 42, 567
 Ablova, M. A. - 42
 Abramov, V. G. - 881, 919
 Abramova, I. M. - 786
 Abramova, N. B. - 397
 Abrikosov, N. Kh. - 21
 Adkhamov, A. A. - 14
 Adrianov, K. A. - 523
 Afanas'ev, Yu. A. - 1346
 Agashkin, O. V. - 467
 Agayan, B. S. - 136
 Ageev, N. V. - 397
 Agroskin, V. Ya. - 1261
 Akhmadullina, F. Yu. 560
 Akutin, M. S. - 82
 Aleksankin, M. M. - 435
 Alekseev, A. F. - 1039
 Alekseev, V. I. - 922
 Alekseev, Yu. V. - 1338
 Alikhanyan, A. S. - 499
 Alisova, S. P. - 847
 Al'perovich, M. A. - 903
 Alyamovskii, S. I. - 804
 Anan'eva, E. A. - 552
 Anan'eva, T. D. - 1036
 Anchevskaya, M. N. - 11
 Andrianov, K. A. - 1264
 Anisimova, V. I. - 512
 Anoshkin, V. I. - 1282
 Antipenko, A. G. - 1318
 Antonova, A. M. - 308
 Antsiferova, L. I. - 477
 Anufrienko, V. F. - 749
 Anufrieva, E. V. - 1036
 Aptekar', I. L. - 884
 Arents, R. A. - 483
 Arest-Yakubovich, A. A. - 1092
 Arkaharov, V. I. - 1061
 Artsis, M. I. - 689
 Arzhintar', O. A. - 1321
 Asanov, A. N. - 1268
 Ashuiko, V. A. - 601
 Ashurov, A. K. - 14
 Askadskii, A. A. - 969
 Atovmyan, L. O. - 1135

Aulov, V. A. - 439
 Avdeenko, M. A. - 489
 Avdeev, V. I. - 1162
 Azatyan, V. V. - 1005, 1057

B

Babich, É. D. - 895
 Babich, V. F. - 172
 Babushkina, T. A. - 381, 492
 Bagdasaryan, G. O. - 926
 Bagdasar'yan, Kh. S. - 545, 973, 1212
 Bakaev, V. A. - 315
 Bakeev, N. F. - 200, 439
 Balabaev, N. K. - 110
 Balabaeva, R. F. - 193
 Balakhnin, V. P. - 619, 661
 Balakhovskii, O. A. - 225
 Balepin, A. A. - 370
 Balezina, G. G. - 278
 Baran, A. A. - 669
 Barancheeva, V. V. - 523
 Baranov, V. G. - 470
 Barantashvili, I. B. - 1008
 Barantsevich, E. N. - 1137
 Bardyshev, I. I. - 1254
 Barelko, V. V. - 366, 665, 703
 Barkalov, I. M. - 486, 503, 623
 Barshchevskii, B. U. - 271
 Bartenev, G. M. - 1254
 Bashkirov, Sh. Sh. - 757
 Basova, R. V. - 1092
 Batyuk, V. A. - 255, 955
 Bayandina, E. V. - 564
 Bazin, Yu. A. - 826
 Bazuev, G. V. - 700
 Bekker, R. A. - 4
 Belilovskii, V. D. - 154
 Belkin, V. S. - 733
 Belousov, O. K. - 122
 Belousov, V. M. - 1131
 Bel'tyukova, S. V. - 913
 Belyaev, V. V. - 1332
 Belyakov, V. K. - 770
 Belyavskaya, T. V. - 601
 Berestennikov, N. I. - 1064

Berezhin, V. V. - 1145
 Berezin, I. V. - 473, 753, 1015, 1141
 Berlin, A. A. - 770, 1335
 Berlin, Yu. A. - 760, 854
 Berman, E. L. - 780
 Berman, S. T. - 176
 Bettger, T. - 388
 Bibin, V. N. - 409
 Bidzilya, V. A. - 1272
 Bil', V. S. - 786
 Blinov, L. M. - 77
 Blyumberg, É. A. - 850, 1190
 Blyumenfel'd, L. A. - 977
 Bobkov, V. V. - 248
 Bobolev, V. K. - 290
 Bochko, A. V. - 1039
 Bochorishvili, Sh. K. - 850
 Bogdanovskaya, V. A. - 1141
 Boguslavskaya, N. I. - 36
 Bokun, V. Ch. - 791
 Boldyrev, A. I. - 1162
 Boldyrev, V. V. - 275
 Bolot'ko, L. M. - 627
 Bolotnikov, V. S. - 1011
 Bol'shakov, A. I. - 503
 Bol'shun, E. V. - 136
 Bonetskaya, N. K. - 442
 Boreskov, G. K. - 409, 749, 1111, 1148
 Borisevich, N. A. - 627
 Borisov, V. T. - 794
 Borisov, Yu. A. - 1094
 Borodulin, R. R. - 1057
 Borokhovskii, V. A. - 470
 Borovkova, V. A. - 973
 Brik, E. B. - 797
 Brikshtein, A. A. - 623
 Brodskii, A. M. - 631
 Broude, S. V. - 706
 Brun, E. B. - 1365
 Buchachenko, A. L. - 59, 477
 Budberg, P. B. - 847
 Budreiko, E. A. - 1305
 Bukin, A. P. - 1285
 Bukov, N. N. - 1346
 Bulgarevich, S. B. - 1011
 Bunina, L. O. - 786
 Burbaev, D. Sh. - 977
 Burdasov, E. N. - 634

Burmakin, E. I. - 830
 Burshtein, A. I. - 767
 Butyagin, P. Yu. - 1349
 Buzykin, B. I. - 820
 Byakov, V. M. - 507
 Byl'skii, B. Ya. - 275
 Bystritskaya, E. V. - 353

C

Chaikin, A. M. - 791
 Chaikovskii, V. M. - 154
 Chebotareva, E. G. - 59
 Chechilo, N. M. - 392
 Chernokal'skii, B. D. - 560
 Chernov, V. M. - 1053
 Chernova, A. V. - 564
 Cheredintsev, V. G. - 456
 Chernyavskii, A. I. - 350
 Chernyshev, Yu. A. - 1261
 Chibisov, K. B. - 71
 Chibisov, K. V. - 1042
 Chigareva, O. G. - 578
 Chistyakov, I. G. - 154
 Chistyakov, V. A. - 757
 Chonishvili, G. M. - 1152
 Chumakova, S. P. - 154
 Chuprina, V. G. - 209
 Churaev, N. V. - 1145
 Chuvaev, V. G. - 527
 Chuvylkin, N. D. - 810

D

Damaskin, B. B. - 265, 1183
 Dashevskii, M. I. - 1159
 Daugvila, Yu. Yu. - 657
 Davidenko, N. K. - 1272
 Davletshina, Kh. Kh. - 1311
 Davydov, R. M. - 977
 de Jonge, K. - 1308
 Dement'ev, A. P. - 619, 661
 Denisaev, A. A. - 290
 Denisevich, E. V. - 647
 Denisov, E. T. - 39
 Denisov, G. S. - 157
 Deriglazov, N. M. - 278
 Dernova, V. S. - 448, 1282
 Deryagin, B. V. - 229, 495, 512, 1145, 1194, 1227
 Didyk, R. I. - 74
 Dikusar, A. I. - 1321
 Dogonadze, R. R. - 832
 Dolgoplosk, B. A. - 80, 140, 1092
 Dolgoplosk, S. B. - 324
 Domracheva, T. I. - 246
 Dorfman, Ya. A. - 11
 Dorokhov, I. N. - 984, 1032

Dorozhkina, G. M. - 564
 Dragan, O. P. - 74
 Dranishnikov, L. V. - 984, 1032

Dregeris, Ya. - 746
 Dremn, A. N. - 395, 463, 1318
 Drobashcheva, T. I. - 1118
 Drobyazko, V. N. - 146, 913
 Dryakhlov, A. S. - 1275
 Dubinin, M. M. - 709
 Dubinskii, V. Z. - 164
 Dubovik, A. V. - 290
 Dubovitskii, F. I. - 36
 Dubrovina, I. G. - 830
 Dubrovskii, V. P. - 301
 Dukhin, A. I. - 794
 Dushin, R. B. - 125
 Dutchak, Ya. I. - 826
 Dvornik, O. S. - 288
 D'yachkovskii, F. S. - 952, 1023
 Dyadyusha, G. G. - 77, 679
 D'yakov, V. M. - 542
 Dyatlova, Ch. V. - 567
 Dzhaifarov, O. I. - 634
 Dzharikbaev, T. K. - 875
 Dzizenko, A. K. - 143
 Dzugutov, M. M. - 783
 Dzyuba, S. A. - 767

E

Édlin, M. G. - 1386
 Egorov, A. N. - 189
 Egorov, V. I. - 619, 661
 Ekimov, S. P. - 578
 El'kin, M. D. - 1282
 El'yashevich, A. M. - 442
 Emanuél, N. M. - 280, 654, 673, 844, 932, 998, 1045, 1243, 1302, 1342
 Emokhonov, V. N. - 420
 Enikolopyan, N. S. - 335, 392, 442, 1215, 1231, 1355
 Éntelis, S. G. - 530
 Épshtein, S. I. - 1108
 Eremenko, E. V. - 669
 Eremin, V. P. - 1346
 Érkhim, V. A. - 122
 Ermakova, R. V. - 294
 Ermilova, M. M. - 64, 958
 Erofeev, B. V. - 120
 Ershov, B. G. - 507
 Ershov, Yu. A. - 1172
 Esin, O. A. - 783
 Éstrina, V. Z. - 32
 Evmenenko, N. P. - 49
 Evseev, A. M. - 14, 783
 Evstratov, V. F. - 1176

Evseeva, N. M. - 932

F

Fainshtein, A. I. - 262
 Fedorov, V. B. - 431, 489
 Fedorovich, N. V. - 1183
 Fedoseev, D. V. - 229
 Fedotov, M. A. - 725, 1029
 Fedotov, V. D. - 1053
 Feshin, V. P. - 32, 185, 518, 1064
 Filippov, A. P. - 1131
 Fok, N. V. - 388
 Fomina, M. V. - 342
 Fonkich, M. E. - 71
 Fortov, V. E. - 463
 Fotiev, A. A. - 865
 Frankevich, E. L. - 420
 Frantsevich, I. N. - 209, 248, 1039
 Freimanis, Ya. F. - 746
 Frolov, V. M. - 140
 Frolov, Yu. E. - 28, 61
 Frolova, N. V. - 1145
 Frumkin, A. N. - 265, 612
 Fuki, V. K. - 388
 Furlei, I. I. - 4, 616

G

Gabdrakipov, V. Z. - 467
 Gabuda, S. P. - 1, 1078
 Gagarina, A. B. - 280, 654, 910, 932, 998, 1045, 1243, 1302, 1342
 Gaidukov, A. M. - 1325
 Galashin, A. E. - 1197
 Galashin, E. A. - 1197
 Gal'chenko, G. L. - 1122
 Galyametdinov, Yu. G. - 560
 Gambarov, G. M. - 530
 Gantmakher, A. R. - 1092
 Garnovskii, A. D. - 1011
 Gasparyan, K. A. - 470
 Gava, S. A. - 146
 Gavrilov, S. D. - 189
 Gazarov, R. A. - 527
 Gel'chinskii, B. R. - 783
 Gel'd, P. V. - 46, 225, 826
 Gel'fond, A. S. - 560
 Ger'mukhanov, F. Kh. - 1223
 Genkin, A. N. - 570
 Genkin, M. V. - 977
 Gerasimov, G. N. - 532
 Gerasimov, Ya. I. - 193, 318, 1102
 GÉrbéléu, N. V. - 567
 Gershenson, Yu. M. - 284, 706, 763

Gimel'shein, F. Ya. - 733
 Gladyshev, G. P. - 269, 515,
 1026, 1186, 1365
 Glazkova, A. P. - 536
 Glazov, V. N. - 717
 Glazov, V. M. - 1328, 1372
 Glazunov, M. P. - 1118
 Glebov, L. A. - 209
 Glinka, É. D. - 297
 Glukhovskoi, V. S. - 1092
 Glushkova, V. B. - 1315
 Gokhshtein, A. Ya. - 801,
 1067
 Gol'danskii, V. I. - 332,
 486, 503, 623, 892, 1074,
 1168
 Gol'dberg, V. M. - 82
 Golenko, T. G. - 80
 Golodov, V. A. - 980
 Golovanenko, S. A. - 428
 Golovanov, I. B. - 574
 Golovko, L. V. - 729
 Golovkova, L. P. - 1272
 Gol'tyapin, Yu. V. - 1122
 Golubev, B. P. - 297
 Golubev, N. S. - 157
 Goncharov, A. A. - 290
 Goncharov, T. K. - 486
 Goncharuk, V. V. - 346
 Gorev, V. A. - 539, 1156
 Gorgoraki, V. L. - 499
 Gorodetskii, A. E. - 647
 Gorodetskii, V. V. - 1285
 Gorodyskii, V. A. - 1019
 Gorokhovatskii, Ya. B. - 49
 Goryaga, A. N. - 697
 Gotlib, Yu. Ya. - 1036
 Grebenshchikov, R. G. - 578
 Gribov, L. A. - 357
 Grigor'ev, A. I. - 1135
 Grigor'eva, A. S. - 232
 Grigoryan, É. A. - 1023
 Grinberg, Ya. Kh. - 197,
 1108
 Grinenko, S. B. - 1131
 Grishin, Yu. A. - 1293
 Gritskov, A. M. - 321
 Grivtsov, A. G. - 110
 Gromov, V. V. - 1204
 Gromova, R. A. - 1036
 Gruev, I. D. - 248
 Gryaznov, V. A. - 113
 Gryaznov, V. M. - 64, 958
 Gryaznova, Z. V. - 1078
 Gurevich, Yu. Ya. - 444
 Gusakova, L. A. - 154
 Guseinov, Z. A. - 634
 Gusel'nikov, L. E. - 634,
 895
 Gusev, A. I. - 1305
 Gusev, O. V. - 431

Gusev, P. A. - 539, 1156
 Guseva, L. N. - 161
 Gussak, B. L. - 1005
 Gvakhariya, V. G. - 713

I

Idrisov, T. Ch. - 97
 Ignatov, D. V. - 397
 Ignatova, T. D. - 56, 990
 Iganatovich, M. V. - 49
 Igranova, E. G. - 401
 Il'ichev, A. N. - 1369
 Il'in, S. D. - 706
 Intezarova, E. I. - 1005
 Ione, K. G. - 749
 Ionov, V. P. - 807, 1201
 Irmatov, M. D. - 850
 Irzhak, V. I. - 442
 Isaeva, L. G. - 884
 Isagulyants, G. V. - 140
 Ishmaeva, É. A. - 542
 Ivanov, D. Yu. - 117
 Ivanov, O. S. - 1325
 Ivanov, P. I. - 324
 Ivanov, V. B. - 1362
 Izmest'ev, A. A. - 773

K

Kabakchi, S. A. - 360
 Kabanov, V. A. - 693
 Kadorkina, G. K. - 205, 242
 Kafarov, V. V. - 984, 1032
 Kagramanov, N. D. - 987
 Kalinnikov, V. T. - 97
 Kalmykova, V. D. - 965, 1085
 Kamneva, A. I. - 100
 Kaplan, I. G. - 836
 Kapustkin, V. K. - 865
 Karakhanova, F. I. - 1258
 Karaseva, L. G. - 1204
 Karasharli, K. A. - 634
 Karavan, Yu. V. - 74
 Karbanova, L. V. - 56
 Karpukhin, O. N. - 353
 Karpukhina, G. V. - 673
 Kartasheva, N. A. - 604
 Kartavykh, V. P. - 1137
 Karushkina, A. Ya. - 729
 Kasatochkin, V. I. - 181
 Kazakova, G. D. - 120
 Kazanskii, L. P. - 721, 1029
 Kazanskii, V. B. - 321, 810
 Kazaryan, L. G. - 786
 Kegeyan, E. M. - 1125
 Kel'man, I. V. - 739
 Kessenikh, A. V. - 297
 Kevdina, I. B. - 892
 Khachatryan, L. A. - 1125

Khageman, G. - 1308
 Khakimova, D. K. - 431, 489
 Khairutdinov, R. F. - 104,
 521
 Kharitonov, A. V. - 1258
 Kharitonov, N. P. - 85
 Kharitonov, V. V. - 39
 Kharitonova, A. A. - 1186
 Kharlampidi, Kh. É. - 878
 Khodan, A. N. - 683
 Khomyakov, A. K. - 342
 Khotsyanova, T. L. - 492
 Khrustalev, Yu. A. - 1194
 Khudobin, Yu. I. - 85, 328,
 868
 Khudyakov, I. V. - 654, 1308
 Khvostach, O. M. - 1362
 Khvostenko, V. I. - 4, 107,
 616
 Kimelfel'd, Ya. M. - 582
 Kiperman, S. L. - 1275
 Kirpichnikov, P. A. - 59
 Kir'yanov, V. I. - 1261
 Kiryukhin, D. P. - 486,
 623
 Kiryukhin, Yu. I. - 545,
 973, 1212
 Kiryushkin, S. G. - 168
 Kiselev, A. I. - 717
 Kitaev, Yu. P. - 820
 Klevtsova, R. F. - 409
 Klimov, A. P. - 140
 Klimov, I. M. - 858
 Klyuev, V. A. - 512
 Kochnev, V. N. - 25
 Kokoreva, N. V. - 64
 Kolesnikov, S. A. - 706
 Kolodina, I. S. - 258
 Kolomiets, I. P. - 657
 Kolosov, V. A. - 973
 Kolotyarkin, Ya. M. - 797,
 1285, 1338
 Kolotyarkina-Safonova,
 T. Ya. - 612
 Kolyutskii, V. N. - 683
 Komissarov, V. D. - 202
 Kondratenko, A. V. - 1223
 Kondrat'ev, V. N. - 619
 Konishevskaya, G. A. - 1131
 Kononenko, L. I. - 146, 913
 Konova, I. Yu. - 428
 Konovalov, A. P. - 53
 Kopylova, L. I. - 888, 1359
 Kornilov, I. I. - 122
 Korolev, V. G. - 1264
 Korotkov, N. A. - 397
 Korshak, V. V. - 181, 324, 969
 Korsunskii, B. L. - 36
 Korzhak, A. V. - 548, 586
 Korzhuev, M. A. - 21
 Kostyanovskii, R. G. - 4, 205,

Kotin, E. B. - 532
 Kotov, A. G. - 687
 Koval', A. G. - 248
 Kovalenko, R. I. - 17
 Kovalev, I. F. - 85, 328, 448, 868, 1282
 Kovaleva, V. A. - 677
 Kovchik, A. P. - 657
 Kozel, S. P. - 1036
 Kozlova, N. V. - 85, 328, 868
 Kozobutskii, V. A. - 770
 Krakoviyak, M. G. - 1036
 Krasnushkin, A. V. - 480
 Krasochka, O. N. - 1135
 Krasotkina, B. E. - 1131
 Krichevskii, I. R. - 246
 Kriss, E. E. - 232
 Krizhanskii, L. M. - 578
 Krotova, I. S. - 1289
 Krotova, N. A. - 512, 1194
 Kruglyak, Yu. A. - 435, 823
 Krupnov, V. K. - 150
 Krylov, O. V. - 332
 Krylov, V. N. - 125
 Krysov, V. I. - 1061
 Kryukov, A. I. - 548, 586
 Kryukov, S. N. - 899
 Kuanyshev, A. Sh. - 1049
 Kuchanov, S. I. - 1365
 Kuchmil, S. Ya. - 548, 586
 Kudinova, O. I. - 952
 Kudryavtsev, G. I. - 965, 1085
 Kudyakova, R. N. - 518
 Kupriyanov, S. E. - 941
 Kurbatov, G. D. - 757
 Kurilenko, A. I. - 129
 Kurochka, I. I. - 366
 Kushnerev, M. Ya. - 483
 Kushnir, S. V. - 301
 Kustova, G. N. - 409
 Kuvaeva, E. A. - 899
 Kuz'min, M. G. - 104, 643
 Kuz'min, V. A. - 654, 679, 742, 903, 1308, 1376
 Kuznetsov, A. K. - 651
 Kuznetsov, A. M. - 832
 Kuznetsov, G. M. - 677, 814
 Kuznetsov, L. D. - 483
 Kuznetsov, N. T. - 426
 Kuznetsov, V. A. - 1315
 Kuznetsov, V. N. - 637
 Kuznetsova, L. I. - 725
 Kuznetsova, V. P. - 1231
 Kvilivdze, V. I. - 480, 713

L

Lashkov, G. I. - 1036
 Laskorin, B. N. - 590, 872

Latyshev, A. N. - 1042
 Lauér, R. S. - 460
 Lavrenko, V. A. - 209, 248, 1039
 Lavrent'ev, A. V. - 229
 Lavrov, A. V. - 601
 Lazarev, É. M. - 397
 Lazarev, V. B. - 378, 1108
 Lazorenko-Manevich, R. M. - 797
 Lebed', I. V. - 945
 Lebedev, A. A. - 248
 Lebedev, V. P. - 370
 Lebedev, Ya. S. - 36, 706
 Lebedev, Yu. A. - 370, 906, 1231
 Lebedeva, T. I. - 1208
 Leonov, M. P. - 677, 814
 Lepnev, G. P. - 1379
 Leshina, T. V. - 1293
 Lesnevskaya, L. S. - 246
 Levi, M. D. - 1183
 Levin, E. I. - 324
 Levin, E. S. - 46, 826
 Levkoev, I. I. - 903
 Librovič, N. B. - 1383
 Lidorenko, N. S. - 773
 Lifintseva, T. V. - 1011
 Likhtenshtein, G. I. - 423
 Linke, E. - 1194
 Lipatov, Yu. S. - 56, 172, 990
 Lipatova, T. É. - 89
 Lisachenko, A. A. - 637
 Livshits, V. S. - 342
 Lobachev, A. N. - 1315
 Lobanov, V. N. - 598
 Lobanov, V. V. - 435
 Loginova, N. F. - 776
 Lopatin, V. A. - 899
 Losev, V. V. - 1285
 Lugovskaya, E. S. - 1039
 Lukin, L. V. - 949
 Luk'yanov, A. S. - 677
 Luk'yanovich, V. M. - 683
 Lur'e, É. P. - 4
 Lushchik, V. B. - 1036
 Lushnikov, A. A. - 239, 593
 Lutkov, A. I. - 1254
 Lutsyk, A. I. - 916
 Luzin, A. N. - 936
 Lyapina, T. G. - 687
 Lyashenko, A. I. - 556, 1049
 Lyubchenko, Yu. A. - 288
 Lysikov, Yu. I. - 363
 Lyudvig, E. B. - 342, 780

M

Maidachenko, G. G. - 154

Maigorov, V. D. - 1383
 Maigorova, A. F. - 318, 1102
 Mairanovskii, S. G. - 840
 Mairanovskii, V. G. - 776
 Maizus, Z. K. - 673
 Makar'ev, M. A. - 657
 Makarevich, L. A. - 117
 Makarov, E. F. - 483, 1168, 1261
 Makarov, I. E. - 1335
 Makarova, O. V. - 700
 Makeev, G. N. - 452
 Makharadze, I. A. - 1008
 Makhnev, E. S. - 757
 Maklakova, T. A. - 952
 Makovetskii, K. L. - 80
 Maksimov, Yu. V. - 332, 483, 1168
 Maksimovskaya, R. I. - 725
 Malievskii, A. D. - 844
 Malin, V. I. - 294
 Malinskaya, V. P. - 689
 Malkin, Ya. N. - 679
 Maloshuk, V. V. - 552, 598
 Mal'tsev, A. K. - 987
 Mal'tseva, A. S. - 28
 Malyavskii, N. I. - 8
 Malysheva, S. F. - 278
 Malyuk, T. I. - 1061
 Mamaev, V. M. - 93
 Mank, V. V. - 729, 1070
 Mantashyan, A. A. - 1125
 Manvelyan, M. G. - 305
 Mardashev, Yu. S. - 120
 Margaryan, A. A. - 305
 Margolis, L. Ya. - 332, 1168
 Marina, N. G. - 363
 Markevich, A. M. - 1074
 Markevich, E. A. - 1057
 Markevich, M. A. - 335
 Markin, A. P. - 836
 Markina, I. B. - 378
 Mart'yanova, G. F. - 36
 Martynova, O. I. - 297, 1289
 Marveev, K. I. - 725
 Mashkovskii, A. A. - 143
 Maslennikova, V. Ya. - 189
 Mastikhin, V. M. - 725
 Matveev, A. I. - 1168
 Matveev, Yu. I. - 969
 Mazalov, L. N. - 1223
 Mazur, V. I. - 133, 1165
 Medvedev, I. G. - 773
 Melikyan, G. G. - 4
 Mel'nikov, M. Ya. - 388
 Mel'nikov, V. P. - 1074
 Mel'nikova, L. A. - 1386
 Melomed, M. A. - 1264
 Merezhinskii, K. Yu. - 651
 Merzhanov, A. G. - 366
 Meshkova, S. B. - 913

Mikhailenko, F. A. - 77, 679
 Mikhailov, A. I. - 503, 1074
 Mikhailova, N. A. - 1127
 Mikheev, Yu. A. - 161
 Miklashevskaya, E. P. - 297
 Mikova, O. B. - 532
 Mileshevich, V. P. - 816
 Miller, V. B. - 164
 Miloserdov, I. V. - 1114
 Minsker, K. S. - 689
 Miroshnichenko, E. A. - 906, 1231
 Miroshnichenko, G. I. - 794
 Mirskov, R. G. - 448
 Mirskova, A. N. - 1064
 Mishchenko, A. P. - 958
 Mit'kin, V. N. - 1
 Mitrofanov, V. V. - 1239
 Moiseev, V. A. - 1105
 Moiseeva, N. I. - 1190
 Moiseeva, V. G. - 570
 Molin, Yu. N. - 1293
 Molokanov, V. V. - 847
 Molotskii, M. I. - 1042
 Monakov, Yu. B. - 363
 Morachevskii, A. A. - 1019
 Moroz, N. K. - 1078
 Moskvina, N. A. - 1328
 Mostovaya, L. M. - 582
 Mostovoi, A. B. - 582
 Motsartov, V. V. - 578
 Movshovich, I. M. - 1172
 Muchnik, G. F. - 773
 Mukhamedov, G. I. - 439
 Mullagaliev, I. R. - 1023
 Muller, V. M. - 1227
 Munikhes, V. M. - 623
 Muradov, V. G. - 250
 Muromtsev, V. I. - 456
 Murza, L. I. - 910
 Musaelyan, I. N. - 930
 Mushkalo, I. L. - 77
 Myasnikov, I. A. - 136, 1114

N

Nadiradze, A. A. - 1008
 Nal'bandyan, A. B. - 926, 1125
 Nametkin, N. S. - 634, 895
 Nardid, O. A. - 1105
 Nasybullin, Sh. A. - 59
 Nechaeva, N. A. - 709
 Nechitailo, A. E. - 332
 Nefedov, O. M. - 987
 Neiman, A. Ya. - 1279
 Nekrasov, L. N. - 861
 Nerpin, S. V. - 640
 Nesmeyanov, N. A. - 176, 899
 Nestorov, A. E. - 56, 990

Niazyan, O. M. - 1125
 Nifant'eva, R. M. - 1118
 Nikiforova, M. B. - 246
 Nikitin, E. E. - 945
 Nikitin, P. A. - 185, 518
 Nikitina, L. P. - 578
 Nikolaev, A. V. - 733, 1223
 Nikolaev, V. Ya. - 965
 Nikolenko, A. F. - 536
 Nikolotova, Z. I. - 604
 Nikol'skii, B. P. - 308, 339
 Nikonorov, Yu. I. - 1
 Niukhanen, A. V. - 357
 Nizel'skii, Yu. N. - 89
 Noa, O. V. - 735
 Norikov, Yu. D. - 850
 Norov, Sh. K. - 339
 Novikov, S. V. - 1176
 Novikova, E. S. - 140
 Novikova, N. F. - 816
 Novokshonova, L. A. - 952
 Novoselova, A. V. - 1081
 Novotortsev, V. M. - 97
 Nuretdinov, I. A. - 564, 1311
 Nurgozhaev, K. Kh. - 875
 Nurmukhametov, R. N. - 1098
 Nurullaev, G. G. - 634
 Nysenko, Z. N. - 780

O

Odinokov, S. E. - 143
 Olenin, V. V. - 814
 Omarkulov, T. O. - 875
 Orazberdiev, Kh. A. - 93
 Orekhova, N. V. - 958
 Orlov, L. G. - 294
 Orlovskii, V. P. - 601
 Oshin, L. A. - 1131
 Oshmyan, V. G. - 1355
 Osipov, K. A. - 1235
 Osipov, O. A. - 1011
 Osipova, E. S. - 477
 Osnach, A. A. - 17
 Osokin, D. Ya. - 820
 Ostrovskaya, I. Ya. - 80
 Ostrovskii, V. E. - 401
 Ovchar, L. A. - 460
 Ovcharenko, F. D. - 346, 729, 1070
 Ozerin, A. N. - 200

P

Palanuer, I. A. - 840
 Pal'chevskii, V. V. - 308, 339
 Pal'guev, S. F. - 236
 Panich, A. A. - 1078
 Panyushkin, V. T. - 1346

Papulova, L. V. - 906
 Parbuzin, V. S. - 8
 Parenago, O. P. - 140
 Parmon, V. N. - 104
 Parnis, M. M. - 922
 Pastukhov, E. A. - 510
 Pasynskii, A. A. - 97
 Patrikeev, G. A. - 213
 Pautov, V. D. - 1036
 Paverman, N. G. - 82
 Pavlinov, L. I. - 693, 906
 Pavlova, L. M. - 1328, 1372
 Pavlovich, V. K. - 1122
 Pavlyuchenko, M. M. - 416
 Peker, T. V. - 1085
 Pendin, A. A. - 339
 Pepekina, V. I. - 370
 Perepelkin, K. E. - 181
 Perevozchikov, V. I. - 357
 Perov, A. A. - 941
 Pervova, I. V. - 318
 Pesterev, V. I. - 467
 Petril, O. A. - 612
 Petrov, A. N. - 1279
 Petrov, E. S. - 1208
 Petrov, L. V. - 878
 Petrov, Yu. N. - 1321
 Petrova, Z. M. - 640
 Petrovskii, P. V. - 176
 Petrushevskii, M. S. - 46, 826
 Petryanov, I. V. - 1295
 Petryanov-Sokolov, I. V. - 239
 Pikaev, A. K. - 360, 994, 1335
 Pikel'ni, V. F. - 973
 Pinaev, A. V. - 1239
 Pisarenko, L. M. - 280, 654, 910
 Pitalev, V. G. - 125
 Platé, N. A. - 735, 1258
 Platonov, B. E. - 669
 Pleshkova, A. P. - 4
 Pobedimskii, D. G. - 49
 Podkhalyuzin, A. T. - 252
 Podoplelov, A. V. - 1293
 Pokrovskii, B. I. - 697
 Poluéktov, N. S. - 146, 460, 913
 Poluéktov, V. A. - 218, 350, 405
 Polukhin, V. A. - 783
 Pomytkin, A. P. - 209
 Ponomarenko, N. N. - 301
 Ponomarenko, V. A. - 780
 Ponomarev, O. A. - 363
 Popov, B. I. - 409
 Popov, S. I. - 1295
 Popov, Yu. A. - 1338
 Popova, N. M. - 412

Postnikov, A. M. - 1089
 Posudievskii, A. Yu. - 823
 Potapova, S. F. - 460
 Potemkin, A. Ya. - 717
 Pozdnyakov, O. F. - 275
 Pravednikov, A. N. - 1098
 Primachuk, V. L. - 1039
 Prodan, E. A. - 416
 Prokof'ev, A. I. - 910
 Protchenko, N. G. - 431
 Protchenko, T. G. - 1039
 Prut, E. V. - 1355
 Ptushkina, M. N. - 1029
 Pudovik, A. N. - 542
 Pukhnarevich, V. B. - 888,
 1359
 Pukhov, K. K. - 456
 Pushkar', N. S. - 1105
 Puzyrev, V. V. - 456

R

Rabinovich, V. A. - 1298
 Radugina, A. A. - 623
 Rafikov, S. R. - 107, 363,
 616
 Rakova, G. V. - 1231
 Rannev, N. V. - 426
 Raspopov, L. N. - 952
 Rat'kovskii, I. A. - 601
 Ratner, S. B. - 786, 1392
 Razumovskaya, I. V. - 930
 Razumovskii, S. D. - 689
 Redutko, N. V. - 100
 Regel', V. R. - 275
 Retinskii, A. A. - 185
 Robas, V. I. - 176
 Roginskii, V. A. - 164
 Roikh, I. L. - 262
 Roshchupkin, V. P. - 486,
 1264
 Rosovitskii, V. F. - 172
 Rozantsev, E. G. - 1362, 1376
 Rozen, A. M. - 604
 Rozenshtein, V. B. - 284, 763
 Rozlovskii, A. I. - 28, 61,
 113
 Rubailo, V. L. - 998, 1045,
 1243, 1302, 1342
 Rubinshtein, A. M. - 1159
 Rubtsov, N. M. - 1057
 Rudakov, E. S. - 916
 Rufov, Yu. N. - 1369
 Rummyantsev, V. G. - 77
 Rusin, B. A. - 420
 Rusina, I. F. - 1001
 Russiyan, K. N. - 952
 Ryabinin, A. I. - 1346
 Ryabinina, S. A. - 1250
 Rybakova, O. L. - 378

Rykov, S. V. - 297
 Ryumtsev, E. I. - 657, 965

S

Saat-sazov, V. V. - 492
 Sadovskii, N. A. - 104, 643
 Safin, I. A. - 820
 Safronov, G. M. - 271
 Sagdeev, R. Z. - 1293
 Saitova, M. A. - 202
 Samardukov, E. V. - 786
 Samarina, O. A. - 542
 Samitov, Yu. Yu. - 150
 Samoilenko, N. G. - 881, 919
 Sanina, G. S. - 342
 Saunin, E. I. - 1204
 Savel'ev, G. G. - 1179
 Savel'ev, V. A. - 374, 1383
 Savel'ev, V. S. - 133, 1165
 Savin, V. A. - 342
 Savitskii, A. P. - 473
 Selim, M. M. - 1078
 Sembaev, D. Kh. - 258
 Semenov, N. N. - 423, 1057
 Semin, G. K. - 381, 492
 Sergeev, B. M. - 255, 955
 Sergeev, G. B. - 255, 955
 Sergeev, N. M. - 93
 Sergeeva, L. M. - 56
 Semyagin, V. N. - 510
 Sevrikov, V. V. - 536
 Shagidullin, R. R. - 564,
 1311
 Shainyan, B. A. - 1064
 Shakhovtseva, G. A. - 1131
 Shamrai, V. F. - 1089
 Shantarovich, V. P. - 892
 Shapiro, A. B. - 1215, 1362
 Shapovalov, M. P. - 677
 Sharapov, B. N. - 590
 Shatenshtein, A. I. - 1208
 Shaulov, A. Yu. - 1215
 Shavard, A. A. - 1005
 Shavartsman, L. A. - 1008
 Shcherbakova, L. G. - 1315
 Shcherbina, G. I. - 311
 Shcheredin, V. P. - 384
 Shchukin, E. R. - 495
 Sheinker, V. N. - 1011
 Shelimova, L. E. - 21
 Sheludyakov, V. D. - 1305
 Shergina, N. I. - 888, 1359
 Sherstyannikova, L. V. - 888,
 1359
 Shevchenko, V. G. - 961
 Sheveleva, T. V. - 1036
 Shibaev, V. P. - 1258
 Shilov, A. E. - 423
 Shinkarenko, V. G. - 749

Shipachev, V. A. - 1
 Shipilov, V. I. - 567
 Shipkov, N. N. - 431, 489
 Shitova, E. N. - 32
 Shkadinskii, K. G. - 366
 Shlepakov, A. V. - 1183
 Shlyachter, R. A. - 1137
 Shlyapintokh, V. Ya. - 1362
 Shlyapnikov, Yu. A. - 168
 Shnol', E. E. - 110
 Shorshorov, M. Kh. - 431, 489
 Shoshenkova, V. V. - 1250
 Shostakovskii, S. M. - 185
 Shtennikova, I. N. - 1085
 Shub, B. P. - 1369
 Shustov, G. V. - 242
 Shustova, O. A. - 269
 Shvedchikov, A. P. - 892
 Shveikin, G. P. - 700, 804
 Shvets, V. A. - 321
 Sibirskaya, G. K. - 994
 Simonov, V. D. - 32
 Sinitsyna, Z. A. - 545, 1212,
 Sinyanskii, V. F. - 452
 Sipachev, V. A. - 1135
 Skorokhodov, S. S. - 1036
 Slavik, V. N. - 941
 Slonimskii, G. L. - 930, 969
 Slovokhotova, N. A. - 439
 Smirnov, B. M. - 452
 Smirnov, I. N. - 1247
 Smirnov, V. I. - 593
 Sirnov, V. S. - 64, 958
 Smirnyi, V. G. - 1223
 Sobolev, V. M. - 574
 Sobolev, V. S. - 1176
 Sokal'skaya, L. I. - 872
 Soklakov, A. I. - 378
 Sokolov, L. F. - 1190
 Sokolov, N. D. - 374
 Sokolov, S. V. - 1190
 Sokolov, V. A. - 378
 Sokolova, I. D. - 378, 499
 Sokol'skaya, A. M. - 222,
 556, 875
 Sokol'skii, D. V. - 11, 222,
 412, 556, 739, 875, 980,
 1049, 1250
 Solntsev, K. A. - 426
 Solntsev, V. N. - 308
 Solodovnikov, S. P. - 910
 Solyanikov, V. M. - 878
 Sotnikova-Yuzhik, V. A. - 416
 Spitsyn, V. I. - 17, 225,
 384, 527, 721, 994, 1029,
 1118, 1204, 1254
 Stanko, V. I. - 381, 1122
 Steblevskii, A. V. - 499
 Stepanov, B. I. - 895
 Stepanov, G. K. - 830
 Stepan'yan, A. E. - 906

Sterlikova, N. V. - 697
 Storozhilova, A. I. - 311
 Stradyn', Ya. P. - 746
 Streletskii, A. N. - 1349
 Strel'tsov, O. A. - 288
 Stroganov, L. B. - 735
 Styrov, V. V. - 1352
 Sukhanova, G. E. - 1315
 Sukhov, F. F. - 439
 Suleimanov, S. P. - 1070
 Suskina, V. I. - 1376
 Sutugin, A. G. - 239
 Suvorov, B. V. - 258
 Suvorova, K. M. - 97
 Suzdalev, I. P. - 332, 483, 1168

T

Tagirov, R. B. - 67
 Tal'roze, R. V. - 1258
 Tal'roze, V. L. - 420
 Tamm, M. E. - 1081
 Taran, Yu. N. - 133, 1165
 Tarasevich, M. R. - 1141
 Tarasevich, Yu. I. - 346
 Tatikolov, A. S. - 742, 1376
 Teitel'baum, B. Ya. - 608
 Tekunova, T. V. - 647
 Telichkun, V. P. - 346
 Temkin, O. A. - 1332
 Temnikovskii, V. A. - 523
 Tenyakov, V. A. - 1386
 Terekhova, M. I. - 1208
 Tesner, P. A. - 647
 Tikhonov, P. A. - 651
 Timofeeva, G. V. - 189
 Titova, I. A. - 776
 Titova, Sh. A. - 980
 Tkachenko, E. V. - 1279
 Tkachenko, Z. A. - 548, 586
 Tolkachev, V. A. - 627, 767
 Tolstaya, T. P. - 492
 Tolstikov, G. A. - 616
 Tomilin, I. A. - 428
 Topchiev, D. A. - 693
 Topolkaraev, V. A. - 1355
 Toptygin, D. Ya. - 82, 161
 Traillina, E. P. - 17
 Traven', V. F. - 895
 Troitskii, O. A. - 384
 Trofimov, B. A. - 888, 1359
 Troshin, Ya. K. - 539, 1156
 Tsai, E. M. - 1250
 Tsal', N. A. - 74
 Tsarevskii, A. V. - 631
 Tsepalov, V. F. - 515, 1026, 1186
 Tsiklis, D. S. - 189
 Tsitsishvili, G. V. - 713

Tsvetkov, V. N. - 657, 965, 1085, 1127
 Tsyganov, A. D. - 1254
 Turovskii, I. V. - 746

U

Ualikhanova, A. - 222
 Udovskii, A. L. - 1325
 Ugarova, N. N. - 473
 Ukhov, V. F. - 783
 Ulin, V. I. - 709
 Umanskii, S. Ya. - 763
 Urakaev, F. Kh. - 275
 Ushakov, N. V. - 895
 Uvarov, A. V. - 1305

V

Vadash, P. I. - 1223
 Vaganov, D. A. - 881, 919
 Vainshtein, B. K. - 154, 530
 Valetskii, P. M. - 324
 Valov, P. I. - 1190
 Valuev, V. I. - 1137
 Vandyukova, I. I. - 1311
 Vardanyan, I. A. - 926, 1125
 Varfolomeev, S. D. - 473, 1015, 1141
 Varlamov, V. T. - 39
 Varshavskaya, I. G. - 229
 Vasilenko, N. A. - 1098
 Vasil'ev, G. K. - 1261
 Vasil'ev, N. G. - 729, 1070
 Vasil'eva, I. A. - 193, 318, 1102
 Vasil'eva, L. M. - 697
 Vasina, L. G. - 1289
 Vasserman, A. M. - 477, 1215
 Vatolin, N. A. - 510, 783
 Vdovin, V. M. - 634, 895
 Vel'tyukova, S. V. - 146
 Vereshchagin, A. N. - 1219
 Vereshchinskii, I. V. - 252
 Verkin, B. I. - 1105
 Vikulin, V. V. - 252
 Vilesov, F. I. - 637
 Vinetskii, V. L. - 739
 Vinogradov, A. M. - 903
 Vinogradov, G. V. - 523
 Vinogradova, S. V. - 324
 Vints, V. V. - 844
 Vistin', L. K. - 154
 Vladimirova, V. I. - 1369
 Vlasov, A. N. - 236
 Vlokh, O. G. - 858
 Vol'kenshtein, M. V. - 574, 1036
 Volkov, A. N. - 518

Volkov, V. L. - 865
 Volnina, E. A. - 634
 Volodin, Yu. E. - 665, 703
 Volokhina, A. V. - 965, 1085
 Voloshchuk, A. M. - 709
 Voronkov, E. B. - 930
 Voronkov, M. G. - 32, 85, 185, 278, 328, 448, 518, 542, 868, 888, 1064, 1282, 1359
 Voronkova, V. K. - 42
 Voropaeva, T. K. - 185
 Vorotyntsev, M. A. - 832, 1152
 Vozdvizhenskii, V. F. - 1049
 Vul'fson, S. G. - 1219
 Vykhodtseva, L. N. - 861

W

Wollbrandt, J. - 1194

Y

Yablokov, Yu. V. - 42
 Yakerson, V. I. - 1159
 Yakimchenko, O. E. - 36
 Yakovlev, B. S. - 949
 Yakshin, V. V. - 590, 872
 Yakushev, V. V. - 395, 1318
 Yalamov, Yu. I. - 495
 Yan'kova, M. A. - 1215
 Yanovskii, Yu. G. - 523
 Yaropolov, A. I. - 1141
 Yarosh, O. G. - 448
 Yaroshenko, A. P. - 916
 Yartsev, V. P. - 1392
 Yasman, Ya. B. - 32
 Yatsimirskii, A. K. - 753
 Yatsimirskii, K. B. - 232, 823, 1131, 1272
 Yudina, K. S. - 604
 Yur'ev, V. P. - 616
 Yur'eva, T. M. - 749
 Yurichev, I. A. - 1389

Z

Zagainov, V. A. - 239
 Zaidenman, I. A. - 53
 Zaikin, V. G. - 895
 Zaikov, G. E. - 689
 Zainulin, Yu. G. - 804
 Zakaraya, M. G. - 832
 Zakharov, A. P. - 647
 Zakharov, I. I. - 1162
 Zakharov, K. S. - 205, 242
 Zakharova, É. N. - 1085, 1127
 Zamaraev, K. I. - 104, 521
 Zamashchikov, V. V. - 916
 Zamozhskii, V. D. - 936

Zansokhova, A. A. - 360
Zaripov, M. M. - 42
Zavorokhin, N. D. - 1332
Zdorov, I. P. - 53
Zeifert, T. - 735
Zeinalov, É. B. - 515, 1026
Zelenetskii, A. N. - 1355
Zelenev, Yu. V. - 324
Zelentsov, V. V. - 97, 567

Zemskov, S. V. - 1
Zezina, L. A. - 786
Zhadanov, B. V. - 297
Zharmagambetova, A. K. - 222
Zhdan, P. A. - 1111, 1148
Zheludev, I. S. - 858
Zhubanov, B. A. - 1332
Zhukova, T. N. - 1335
Zhukovskii, V. M. - 1279

Zin'kovskaya, O. V. - 388
Zinov'ev, V. E. - 225
Zlomanov, V. P. - 1081
Zolotov, Yu. A. - 807, 1201
Zolotova, T. V. - 673
Zorin, Z. M. - 1145
Zubov, Yu. A. - 200, 439
Zyablikova, T. A. - 150

TABLES OF CONTENTS

DOKLADY PHYSICAL CHEMISTRY

Volumes 220-225, 1975

(A translation of the Physical Chemistry section of Doklady Akademii Nauk SSSR)

Volume 220, Numbers 1-3

January, 1975

Engl./Russ.

Configurational Distortions of Octahedral Fluoro Complexes of Ni^{IV} in Crystals of the Cubic System — S. V. Zemskov, Yu. I. Nikonorov, V. A. Shipachev, S. P. Gabuda, and V. N. Mit'kin	1	142
Mass Spectra of the Positive and Negative Ions of the Keto and Enol Forms of Pentafluoroacetone — R. G. Kostyanovskii, A. P. Pleshkova, V. I. Khvostenko, I. I. Furlai, É. P. Lur'e, G. G. Melikyan, and R. A. Bekker	4	146
The Quantum Calculation of the Coefficients for the Isotopic and Ortho-Para Distribution for the Case of Low-Temperature Sorption of Isotopic Hydrogen Molecules by NaA Zeolite — V. S. Parbuzin and N. I. Malyavskii	8	150
Effect of the Reactants on the Properties of Hydrogenation Catalysts — D. V. Sokol'skii, M. N. Anchevskaya, and Ya. A. Dorfman	11	153
Calculation of Kinetic Coefficients in a Molecular-Mechanical Model of Liquid Argon — A. K. Ashurov, A. M. Evseev, and A. A. Adkhamov	14	396
Determination of the Ionization Constants of Conjugated Azomethine Acids by the Use of an Orthogonal Experimental Design — R. I. Kovalenko, E. P. Trailina, A. A. Osnach, and V. I. Spitsyn	17	399
Electrical Resistance and Thermal emf of Germanium Telluride in the Region of Phase Transition — M. A. Korzhuev, N. Kh. Abrikosov, and L. E. Shelimova	21	403
Shock Polarization of Water at the Surface of an Electrode — V. N. Kochnev	25	407
Reaction Kinetics for the Interaction of Chlorine and Hydrogen in a Flame — A. I. Rozlovskii, A. S. Mal'tseva, and Yu. E. Frolov	28	410
Cl^{35} NQR Spectra of Some Derivatives of Trichloroacrylic Acid — V. P. Feshin, M. G. Voronkov, V. D. Simonov, V. Z. Éstrina, Ya. B. Yasman, and E. N. Shitova	32	414
ESR Investigation of the Thermal Decomposition of Picric Acid — N. I. Boguslavskaya, G. F. Mart'yanova, O. E. Yakimchenko, B. L. Korsunskii, Ya. S. Lebedev, and F. I. Dubovitskii	36	617
Multiple Chain-Breaking on Aromatic Amines during Hydrocarbon Oxidation — V. T. Varlamov, V. V. Kharitonov, and E. T. Denisov	39	620
Distortion of the Tetrahedral Coordination and Electronic Properties of $Cu(II)$ in $Zn(NCS)_2 \cdot A_2$ — V. K. Voronkova, M. M. Zaripov, Yu. V. Yablokov, A. V. Ablov, and M. A. Ablova	42	623
Estimation of the Parameters of Short-Range Order in Amorphous Iron and Cobalt Germanides — P. V. Gel'd, M. S. Petrushevskii, and E. S. Levin	46	627
Liquid-Phase Oxidation of Cumene Catalyzed by Oxides of Manganese or Nickel — N. P. Evmenenko, M. V. Iganatovich, and Ya. B. Gorokhovatskii	49	630
System of Equations for Nonstationary Transport in Isothermal Multicomponent Mixtures Without Viscous Momentum Transfer ("Equal Acceleration Approximation") — I. A. Zaidenman, I. P. Zdorov, and A. P. Kononov	53	634
Thermodynamics of Interpenetrating Polymeric Nets — Yu. S. Lipatov, A. E. Nestorov, L. M. Sergeeva, L. V. Karbanova, and T. D. Ignatova	56	637

Catalysis of the Reduction of Organic Hydroperoxides by Organic Phosphites — D. G. Pobedimskii, E. G. Chebotareva, Sh. A. Nasybullin, P. A. Kirpichnikov, and A. L. Buchachenko	59	641
Average Propagation Velocity of a Spherical Flame in a Closed Vessel — A. I. Rozlovskii and Yu. E. Frolov	61	644
Selective Hydrogenation of Cyclopentadiene on Membrane Catalysts — V. S. Smirnov, M. M. Ermilova, N. V. Kokoreva, and V. M. Gryaznov	64	647
Collective Desorption of Molecules by the Action of a Powerful Light Flux — R. B. Tagirov	67	651
Quantum Yield in the Herschel Effect — M. E. Fonkich and K. B. Chibisov	71	655
Liberation of Gaseous Components of Alkali Halide Crystals on Radiolysis — N. A. Tsal', Yu. V. Karavan, R. I. Didyk, and O. P. Dragan	74	658

Volume 220, Numbers 4-6

February, 1975

Polarization of Absorption Bands of Solutions of Biscyanine Dyes in Liquid Crystals — L. M. Blinov, G. G. Dyadyusha, F. A. Mikhailenko, I. L. Mushkalo, and V. G. Rumyantsev	77	860
Initiation of the Polymerization of Cycloolefins with Ring Opening by the Tungsten Halide— Ethyl Diazoacetate System — T. G. Golenko, B. A. Dolgoplosk, K. L. Makovetskii, and I. Ya. Ostrovskaya	80	863
Effect of Processing Regimes on the Molecular-Weight Distribution of Low-Density Polyethylene — V. M. Gol'dberg, N. G. Paverman, M. S. Akutin, and D. Ya. Toptygin .	82	865
The Vibrational Infrared Absorption and Raman Spectra of Various Phenoxysilanes — N. V. Kozlova, I. F. Kovalev, Yu. I. Khudobin, N. P. Kharitonov, and M. G. Voronkov	85	869
The Catalytic Activity of β -Diketonato Compounds of Copper in the Formation of Urethanes — T. É. Lipatova and Yu. N. Nizel'skii	89	873
Analysis of the Conformational Relationships of the Spin-Spin Coupling Constant of the Protons in Butadiene — V. M. Mamaev, Kh. A. Orazberdiev, and N. M. Sergeev .	93	877
Two Paramagnetic Forms of Complexes of Cobalt Biscarboxylates with Quinoline and α -Picoline — A. A. Pasyanskii, T. Ch. Idrisov, K. M. Suvorova, V. M. Novotortsev, V. V. Zelentsov, and V. T. Kalinnikov	97	881
Nature of Promoting Action of Bromide Ions in the Catalysis of the Oxidation of p-Xylene by Cobalt Salts — N. V. Redutko and A. I. Kamneva	100	884
Possibilities of a Tunnel Effect in Fluorescence Processes in Solid Solutions — R. F. Khairutdinov, N. A. Sadovskii, V. N. Parmon, M. G. Kuz'min, and K. I. Zamaraev	104	888
Basic Rules for Negative Ion Formation through Dissociative Electron Capture by Polyatomic Molecules — V. I. Khvostenko and S. R. Rafikov	107	892
Numerical Modeling of the Movement of a Linear Polymeric Chain — N. K. Balabaev, A. G. Grivtsov, and É. É. Shnol'	110	1096
Kinetics of the Addition of Nitrogen Dioxide to Multiple-Bonded Hydrocarbons — V. A. Gryaznov and A. I. Rozlovskii	113	1099
Form of the Critical Isotherm of a Pure Substance — D. Yu. Ivanov and L. A. Makarevich ...	117	1103
The Catalytic Properties of Gold on Ionic Carriers — G. D. Kazakova, Yu. S. Mardashev, and B. V. Erofeev	120	1106
Special Properties of Alloys Based on the Metallides AgCd and AgZn — I. I. Kornilov, V. A. Érkhim, and O. K. Belousov	122	1108
The Structure of the Sorbent and the Mechanism of Ion Exchange on Amorphous Tin Phosphate — V. N. Krylov, R. B. Dushin, and V. G. Pitalev	125	1111

Mechanical Properties of Multicomponent Polymeric Materials — A. I. Kurilenko	129	1115
Eutectic Melt Structure in the Al-Si System — V. I. Mazur, V. S. Savel'ev, and Yu. N. Taran ..	133	1119
Ionization of Metal Atoms on Films of Zinc Oxide and on Semiconductor Detectors — I. A. Myasnikov, E. V. Bol'shun, and B. S. Agayan	136	1122
Kinetics of Butadiene Polymerization under the Influence of the $(\pi\text{-C}_4\text{H}_7\text{NiCl})_2\text{-CCl}_3\text{COCI}$ System — E. S. Novikova, A. P. Klimov, O. P. Parenago, V. M. Frolov, G. V. Isagulyants, and B. A. Dolgoplosk	140	1126
Relationship between the Enthalpy of the H-Complex A-H...B and the Change in the Chemical Shift of the Proton in the PMR Spectra — S. E. Odinokov, A. A. Mashkovskii, and A. K. Dzizenko	143	1130
"Hypersensitive" Transitions in the Luminescence Spectra of Samarium and Europium Ions in Solutions of Various Complexes — N. S. Poluéktov, L. I. Kononenko, S. V. Vel'tyukova, S. A. Gava, and V. N. Drobyazko	146	1133
Dispersion of the Chemical Heteronuclear $\text{H}^1\text{-}\{p^{31}\}$ Spin Uncoupling — Yu. Yu. Samitov, T. A. Zyablikova, and V. K. Krupnov	150	1137
Formation of Smectic Mesophases in Mixtures of Nematic Liquid Crystals — B. K. Vainshtein, I. G. Chistyakov, G. G. Maidachenko, L. A. Gusakova, V. D. Belilovskii, V. M. Chaikovskii, L. K. Vistin', and S. P. Chumakova	154	1349
The Intramolecular Hydrogen Bond and Retarded Internal Rotation in 2,6-Dicarbonyl- Substituted Phenols — N. S. Golubev and G. S. Denisov	157	1352
Concentration Inhibition of Reactions in Cellulose Triacetate Photosensitized by Naphthalene — L. N. Guseva, Yu. A. Mikheev, and D. Ya. Toptygin	161	1356
Role of Quinonoid Peroxide in Oxidation Inhibited by Phenols — V. Z. Dubinskii, V. A. Roginskii, and V. B. Miller	164	1360
Laws Governing the Formation and Decomposition of Hydroperoxide Groups in the Oxidation of Polypropylene — S. G. Kiryushkin and Yu. A. Shlyapnikov	168	1364
Effect of Fillers on the Relaxation-Time Spectrum of Filled Polymers — Yu. S. Lipatov, V. F. Rosovitskii, and V. F. Babich	172	1368
Tautomerism of Acylmethylphosphonium Salts — N. A. Nesmeyanov, S. T. Berman, P. V. Petrovskii, and V. I. Robas	176	1372
Estimation of Limiting Values of the Mechanical Properties of Carbyne, a Carbon-Chain Polymer — K. E. Perepelkin, V. V. Korshak, and V. I. Kasatochkin	181	1376
Investigation of the Electronic Structure of the Cyclopropane Ring by Cl^{35} NQR — V. P. Feshin, M. G. Voronkov, S. M. Shostakovskii, P. A. Nikitin, T. K. Voropaeva, and A. A. Retinskii	185	1380
Molar Volumes and Equation of State of Molecular Hydrogen at High Pressures — D. S. Tsiklis, V. Ya. Maslennikova, S. D. Gavrilov, A. N. Egorov, and G. V. Timofeeva	189	1384

Volume 221, Numbers 1-3

March, 1975

The Defect Structure of Nonstoichiometric Vanadium Dioxide at High Temperatures — R. F. Balabaeva, I. A. Vasil'eva, and Ya. I. Gerasimov	193	113
Calculations of Complex Equilibria from the Results of Tensiometric Studies — Ya. Kh. Grinberg	197	117
Surface Energy of High-Pressure-Phase Polyethylene Crystallites upon High-Pressure Annealing — Yu. A. Zubov, A. N. Ozerin, and N. F. Bakeev	200	121
Chain Termination in Liquid-Phase Sulfoxidation of n-Decane — V. D. Komissarov and M. A. Saitova	202	123
Diastereomeric 1-Alkoxy-carbonyloxy-2,2-bis(trifluoromethyl)aziridines — R. G. Kostyanovskii, G. K. Kadorkina, and K. S. Zakharov	205	126

Kinetics of the Formation of Solid and Gaseous Products from High-Temperature Oxidation of Chromium Carbide Cr_3C_2 in Oxygen — V. A. Lavrenko, A. P. Pomytkin, L. A. Glebov, V. G. Chuprina, and I. N. Frantsevich	209	130
Structural Approach during Investigation of the Physical Properties of Liquid n-Alkanes and Polymethylene — G. A. Patrikeev	213	134
Mass Transfer from the Gaseous to the Liquid Phase, Complicated by a High-Speed Chain Reaction — V. A. Poluektov	218	138
Hydrogenation of Aliphatic Ketones by Metallic Catalysts in the Liquid Phase — A. M. Sokol'skaya, D. V. Sokol'skii, A. Ualikhanova, and A. K. Zharmagambetova ..	222	142
Thermophysical and Magnetic Properties of Technetium over a Wide Range of Temperatures — V. I. Spitsyn, V. E. Zinov'ev, P. V. Gel'd, and O. A. Balakhovskii	225	145
The Growth of Graphite Whiskers — D. V. Fedoseev, B. V. Deryagin, I. G. Varshavskaya, and A. V. Lavrent'ev	229	149
A Study of the Dimeric Copper(II) Complexes with Phenylantranilic Acid Derivatives by the ESR Method — K. B. Yatsimirskii, E. E. Kriss, and A. S. Grigor'eva	232	153
Effect of the Addition of Rare Earth Oxides on the Structure of Zirconium and Hafnium Dioxides — A. N. Vlasov and S. F. Pal'guev	236	364
Probability of Sticking of Molecular Aerosol Particles to a Surface — V. A. Zagainov, A. G. Sutugin, I. V. Petryanov-Sokolov, and A. A. Lushnikov	239	367
Configurational Stability of Aziridines with Electronegative Substituents on Nitrogen or a Ring Carbon — R. G. Kostyanovskii, G. K. Kadorkina, G. V. Shustov, and K. S. Zakharov	242	370
Expansion Energy of Diluted Critical Phases in a Binary System — I. R. Krichevskii, L. S. Lesnevskaya, M. B. Nikiforova, and T. I. Domracheva	246	374
Mechanism of Corrosion of Gold Coverings in Products of the Thermal Destruction of Chloroprene Rubber Polymer — V. A. Lavrenko, I. D. Gruev, A. A. Lebedev, A. G. Koval', V. V. Bobkov, and I. N. Frantsevich	248	376
The Partial Pressure of Atomic Antimony — V. G. Muradov	250	379
Alkylation of Adamantane with Ethylene, Initiated by γ -Radiation — A. T. Podkhalyuzin, V. V. Vikulin, and I. V. Vereshchinskii	252	381
Micellar Catalysis in Frozen Solutions — G. B. Sergeev, V. A. Batyuk, and B. M. Sergeev	255	384
Oxidative Ammonolysis of Pseudocumene — B. V. Suvorov, D. Kh. Sembaev, and I. S. Kolodina	258	388
Diffusion of Copper into a Film of Iron Oxides — A. I. Fainshtein and L. L. Roikh	262	392
Real Free Energy of Solvation of an Electron in the Equilibrium of an Electrode with a Solution — A. N. Frumkin and B. B. Damaskin	265	395
Mechanism of the Inhibited Thermal-Oxidative Degradation of Thermally Stable Polymers — O. A. Shustova and G. P. Gladyshev	269	399
Correlation between the Width of the Forbidden Band and the Bond Energy of an Exciton in Light-Sensitive Crystals — B. U. Barshchevskii and G. M. Safronov	271	630
A Study of the Chemical Reactions Taking Place on the Breakdown of Crystals of Inorganic Salts — V. V. Boldyrev, V. R. Regel', O. F. Pozdnyakov, F. Kh. Urakaev, and B. Ya. Byl'skii	275	634
Kinetics and Mechanism of the Acid-Catalyzed Hydrolysis of Divinyl, Butyl Vinyl, and Dibutyl Acetal — M. G. Voronkov, N. M. Deriglazov, G. G. Balezina, and S. F. Malysheva	278	638
Inhibiting Action of Organic Radicals Formed by Dimer Dissociation in the Low-Temperature Oxidation of Hydrocarbons — A. B. Gagarina, L. M. Pisarenko, and N. M. Émanuel'	280	640
Measurement of the Rate of Chemical Relaxation of the Vibrational Energy of Deuterium Molecules in the Reaction $D + D_2 (v=1) \rightarrow D_2 (v=0) + D$ — Yu. M. Gershenzon and V. B. Rozenshtein	284	644
Influence of the Concentrations of Divalent and Trivalent Iron in Nonreduced Contact Catalysts for the Synthesis of Ammonia on Their Catalytic Properties — O. S. Dvornik, O. A. Strel'tsov, and Yu. A. Lyubchenko	288	648
Structure of a Low-Velocity Detonation Front in Nitroglycerin — A. V. Dubovik, A. A. Goncharov, A. A. Denishev, and V. K. Bobolev	290	650

Effect of an Aqueous Sodium Sulfate Solution on the Yield Point of Iron — R. V. Ermakova, V. I. Malin, and L. G. Orlov	294	654
Thermal Decomposition of Ethylenediaminetetraacetic Acid — B. V. Zhadanov, O. I. Martynova, B. P. Golubev, E. P. Miklashevskaya, S. V. Rykov, A. V. Kessenikh and É. D. Glinka	297	657
Thermodynamic Stability of Orthophosphates — S. V. Kushnir, V. P. Dubrovskii, and N. N. Ponomarenko	301	661
Spectroscopy of Mn(II) in Fluorophosphate Glasses — A. A. Margaryan, M. G. Manvelyan	305	665
Composition and Stability Constants of Protonated Complexes (Citrate Complexes of Cadmium) — B. P. Nikol'skii, A. M. Antonova, V. V. Pal'chevskii, and V. N. Solntsev	308	669
Measurement of the Rate of Diffusion of Coarse, Nonvolatile, Aerosol Particles in Air/Water Vapor Mixtures — A. I. Storozhilova and G. I. Shcherbina	311	673

Volume 221, Numbers 4-6

April, 1975

Repulsion Energy for Physical Adsorption on Ionic Crystals and Zeolites — V. A. Bakaev	315	861
Thermodynamic Properties of the Oxides and the Equilibrium Diagram of the Tb—O System in the Range of Compositions $1.54 < O: Tb < 1.74$ and Temperatures 850–1000°C — I. A. Vasil'eva, Ya. I. Gerasimov, A. F. Maiorova, and I. V. Pervova	318	865
Study of the State of Double-Bonded Oxygen in Applied Oxide Catalysts by Fluorescent Methods — A. M. Gritskov, V. A. Shvets, and V. B. Kazanskii	321	868
Molecular Mobility Processes in Aliphatic Siloxane Block Copolymers — P. L. Ivanov, E. I. Levin, S. B. Dolgoplosk, P. M. Valetskii, S. V. Vinogradova, V. V. Korshak, and Yu. V. Zelenev	324	872
Vibrational Spectra of Methylcresoxysilanes and Tetracresoxysilanes — N. V. Kozlova, I. F. Kovalev, Yu. I. Khudobin, and M. G. Voronkov	328	876
Investigation by Gamma Resonance Spectroscopy of the Process of Charge Transfer by an Fe—Co—Mo Catalyst during the Catalytic Reaction of Mild Oxidation of Propylene — Yu. V. Maksimov, I. P. Suzdalev, V. I. Gol'danskii, O. V. Krylov, L. Ya. Margolis, and A. É. Nechitailo	332	880
Equilibrium Distribution of Cyclic Macromolecules — M. A. Markevich and N. S. Enikolopyan	335	884
Interconnection between Oxidative—Reductive, Acid—Base, and Ion-Exchange Properties of Redox Resins — B. P. Nikol'skii, Sh. K. Norov, V. V. Pal'chevskii, A. A. Pendin	339	888
Mechanism of the Cationic Polymerization of Glycolide in the Melt under the Action of Antimony Trifluoride — G. S. Sanina, M. V. Fomina, A. K. Khomyakov, V. S. Livshits, V. A. Savin, and E. B. Lyudvig	342	892
Electronic Spectra of p-Dimethylaminoazobenzene Sorbed by Kaolinite — V. P. Telichkun, Yu. I. Tarasevich, V. V. Goncharuk, and F. D. Ovcharenko	346	896
Kinetics of the Oxidation of Symmetrical Dichloroethylenes — A. I. Chernyavskii and V. A. Poluektov	350	900
Effect of the Aggregate State of the Medium on Singlet Oxygen Quenching — E. V. Bystritskaya and O. N. Karpukhin	353	1100
AB Initio Calculations of Molecular Electronic Structure by Differentiation of Integral Estimates — L. A. Gribov, A. V. Niukhanen, and V. I. Perevozchikov	357	1104
Effect of the Nature of the Cation on the Yields of Cl_2^- in the Pulsed Radiolysis of Aqueous Alkali Chloride Solutions — S. A. Kabakchi, A. A. Zansokhova, and A. K. Pikaev	360	1107
Conformational Characteristics of the Alternating 1-Hexene—Maleic Acid Copolymer in Solutions — Yu. I. Lysikov, S. R. Rafikov, O. A. Ponomarev, Yu. B. Monakov, and N. G. Marina	363	1111
Propagation of a Heterogeneous—Catalytic Reaction Front — A. G. Merzhanov, V. V. Barelko, I. I. Kurochka and K. G. Shkadinskii	366	1114

Thermochemistry of C-Nitroso Compounds — V. I. Pepekin, V. P. Lebedev, A. A. Balepin, and Yu. A. Lebedev	370	1118
The Anomalous Isotope Effect for the Frequency of the $\nu(\text{AH})$ Stretching Vibrations in Strong Hydrogen Bonds $\text{A}-\text{H} \cdots \text{B}$ — V. A. Savel'ev and N. D. Sokolov	374	1122
The Polymorphic Transformation and Conductivity of the High-Temperature Modification of Silver Orthophosphate — I. D. Sokolova, V. B. Lazarev, A. I. Soklakov, V. A. Sokolov, I. B. Markina, and O. L. Rybakova	378	1126
The Carbon Atom in Carboranes-12 — V. I. Stanko, G. K. Semin, and T. A. Babushkina	381	1129
Isotopic Enrichment of Cadmium during Pulsed Electrotransfer and Zone Refining — O. A. Troitskii, V. I. Spitsyn, and V. P. Shcheredin	384	1132
Photochemical Conversions of Radicals in Polyvinylacetate and Vinyl Acetate-Ethylene Copolymers at 77°K — V. K. Fuki, O. V. Zin'kovskaya, T. Bettger, M. Ya. Mel'nikov, and N. V. Fok	388	1136
Effect of the Concentration and Nature of Initiators on the Propagation Process in Polymerization — N. M. Chechilo and N. S. Enikolopyan	392	1140
Nature of the Electrical Conductivity of the Detonation Products from Condensed Explosives — V. V. Yakushev and A. N. Dremis	395	1143
Mechanism of the Effect of Yttrium on the Heat Resistance of Nickel-Chromium Alloys — N. V. Ageev, N. B. Abramova, D. V. Ignatov, É. M. Lazarev, and N. A. Korotkov	397	1348
Calorimetric Study of the Sorption of Hydrogen on an Iron Catalyst for Ammonia Synthesis — E. G. Igranova and V. E. Ostrovskii	401	1351
Kinetic Aspects of the Initiation of Gas-Phase Chain Reactions by Pulsed Electron Accelerators — V. A. Poluektov	405	1355
On the Active Component of the Ferromolybdenum Catalyst in the Oxidation of Methanol to Formaldehyde — B. I. Popov, L. I. Abaulina, G. N. Kustova, R. F. Klevtsova, V. N. Bibin, and G. K. Borekov	409	1359
Hydrogen Species Adsorbed on Group VIII Metals and Their Role in Hydrogenation Catalysis — N. M. Popova and D. V. Sokol'skii	412	1363
Mechanochemical Transformation of $\text{Na}_5\text{P}_3\text{O}_{10}$ (I) and $\text{Na}_5\text{P}_3\text{O}_{10}$ (II) — E. A. Prodan, V. A. Sotnikova-Yuzhik, and M. M. Pavlyuchenko	416	1367
Electron-Excited State of a Light Emitter in the Chemiluminescent Reaction for the Oxidation of Luminol Studied by the Energy Transfer Method — B. A. Rusin, V. N. Emokhonov, E. L. Frankevich, and V. L. Tal'roze	420	1371
Multielectron Oxidation-Reduction Processes in Chemistry and Biology — N. N. Semenov, A. E. Shilov, and G. I. Likhtenshtein	423	1374
Crystal Structure and Some Physicochemical Properties of Barium Dodecahydro-Closo Dodecarborate Hexahydrate — K. A. Solntsev, N. T. Kuznetsov, and N. V. Rannev	426	1378
Activity of Carbon in the System Nickel-Chromium at 800-1200°C — I. A. Tomilin, I. Yu. Konova, and S. A. Golovanenko	428	1381
Metastable Phase Diagrams — V. B. Fedorov, M. Kh. Shorshorov, N. N. Shipkov, O. V. Gusev, D. K. Khakimova and N. G. Protsenko	431	1385

Volume 222, Numbers 1-3

May, 1975

Acetaldehyde Dissociation in an Electric Field — M. M. Aleksankin, V. V. Lobanov, and Yu. A. Kruglyak	435	132
Fine Structure and the Nature of the β -Relaxation Transition in Linear Polyethylene — V. A. Aulov, Yu. A. Zubov, G. I. Mukhamedov, N. F. Bakeev, F. F. Sukhov, and N. A. Slovokhotova	439	136

Modeling of Conformations of Crosslinked Polymers - N. K. Bonetskaya, V. I. Irzhak, A. M. El'yashevich, and N. S. Enikolopyan	442	140
Special Features of the Thermodynamics of Solid Electrolytes - Yu. Ya. Gurevich	444	143
Principal Parameters of the Lines in the Raman Spectra of HSiCl_3 and DSiCl_3 - V. S. Dernova, I. F. Kovalev, M. G. Voronkov, O. G. Yarosh, and R. G. Mirskov	448	147
Absorption Spectra of Certain Fluorides in the Near Ultraviolet Region - G. N. Makeev, V. F. Sinyanski, and B. M. Smirnov	452	151
Investigations of the Hydrogen Bond by the Methods of ESR Relaxation - V. L. Muromtsev, V. V. Puzyrev, K. K. Pukhov, and V. G. Cheredintsev	456	155
Influence of Solvents on the Oscillator Strengths of the Hypersensitive Transitions of Neodymium, Holmium, and Erbium Ions in Solutions of Complexes with N-Benzoyl-N-phenylhydroxylamine - N. S. Poluektov, R. S. Laufer, S. F. Potapova, and L. A. Ovchar	460	159
Semiempirical Equation of Stage of Trinitrotoluene - V. E. Fortov and A. N. Dremine	463	162
Spectra of Invertomers of Piperidine in the Far Ultraviolet - O. V. Agashkin, V. I. Pesterev, and V. Z. Gabdrakipov	467	373
A Generalized Equation for the Kinetics of Polymer Crystallization - V. G. Baranov, V. A. Borokhovskii, and K. A. Gasparyan	470	377
Light-Initiated Reconstruction of Hemin-Containing Enzymes - I. V. Berezin, S. D. Varfolomeev, A. P. Savitski, and N. N. Ugarova	473	380
Novel Paramagnetic Probe for Rigid Polymers - A. M. Vasserman, L. I. Antsiferova, E. S. Osipova, and A. L. Buchachenko	477	384
Mobility of Water on Clay Minerals from O^{17} NMR Data - V. I. Kvivlidze and A. V. Krasnushkin	480	388
Investigation by Gamma-Resonance Spectroscopy of the Interstitial Phase Arising on Defect Sections of a Promoted Iron Ammonia-Synthesis Catalyst - Yu. V. Maksimov, I. P. Suzdalev, R. A. Arents, E. F. Makarov, M. Ya. Kushnerev, and L. D. Kuznetsov	483	392
New Structural Modification of Polyoxymethylene Obtained by the Solid Phase Polymerization of Formaldehyde - V. P. Roshchupkin, T. K. Goncharov, D. P. Kiryukhin, I. M. Barkalov, and V. I. Gol'danskii	486	396
Kinetics of Graphitization - V. B. Fedorov, D. K. Khaldimova, M. Kh. Shorshorov, N. N. Shipikov, and M. A. Avdeenko	489	399
^{127}I Nuclear Quadrupole Resonance Spectrum and Crystal Structure of Diphenyliodonium Iodide - T. L. Khotyanova, T. A. Babushkina, V. V. Saat-sazov, T. P. Tolstaya, and G. K. Semin	492	403
Theory of the Diffusion of Small Volatile Aerosol Particles - Yu. I. Yalamov, E. R. Shchukin, and B. V. Deryagin	495	406
Thermodynamic Properties of Alkali Metal Metaphosphates - A. S. Alikhanyan, A. V. Steblevskii, V. I. Gorgoraki, and I. D. Sokolova	499	629
Copolymerization in the Devitrification of the System Acrylic Acid-Acetone - A. I. Bol'shakov, A. I. Mikhailov, I. M. Barkalov, and V. I. Gol'danskii	503	633
Applicability of the Diffusion-Recombination Model to Low-Temperature Radiation of Polar Solid Solutions - V. M. Byakov and B. G. Ershov	507	637
Effect of Temperature on the Structure of Liquid Aluminum - N. A. Vatolin, É. A. Pastukhov, and V. N. Sermyagin	510	641
Energy Distribution of Electrons Emitted by Freshly Formed Polymer Surfaces - B. V. Deryagin, V. I. Anisimova, V. A. Klyuev, and N. A. Krotova	512	644
A Study of the Kinetics and Mechanism of the Oxidative Degradation of Polydimethylsiloxane Rubbers - É. B. Zeinalov, V. F. Tsepalov, and G. P. Gladyshev	515	647
A Study of Chlorine Derivatives of Acetylene by the Cl^{35} NQR Method - V. P. Feshin, A. N. Volkov, P. A. Nikitin, R. N. Kudyakova, and M. G. Voronkov	518	650
Tunneling Electron Transfer at Large Distances in Reactions of Variable Valence Metals in the Condensed Phase - R. F. Khairutdinov and K. I. Zamaraev	521	654

Generalized Viscoelastic Characteristics of Linear Polysiloxanes and Carbon Chain Polymers - K. A. Adrianov, V. A. Temnikovskii, G. V. Vinogradov, Yu. G. Yanovskii, and V. V. Barancheva	523	855
Dehydration of Group II and III Metal Phosphates and Perchlorates. PMR Spectra - R. A. Gazarov, V. F. Chuvaev, and V. I. Spitsyn	527	859
Dependence of the Equilibrium Constant on the Position of the Reacting Group in the Polymer - G. M. Gambarov, É. F. Vainshtein, and S. G. Éntells	530	862
Activationless Photodimerization of Cinnamic Acid Derivatives in the Crystalline and Vitreous State - G. N. Gerasimov, O. B. Mikova, E. B. Kotin, and A. D. Abkin	532	865
Role of Heterogeneous Catalysis in Flame Inhibition in Propane/Air Mixtures - A. P. Glazkova, A. F. Nikolenko, and V. V. Sevrlikov	536	869
The Ascent and Combustion of a Cloud of Hydrogen in Air - V. A. Gorev, P. A. Gusev, and Ya. K. Troshin	539	873
Dipole Moments of Silatrane and Effect of Substituents on Them - É. A. Ishmaeva, O. A. Samarina, V. M. D'yakov, M. G. Voronkov, and A. N. Pudovik	542	876
Dependence of the Quantum Efficiency of Two-Quantum Reactions on the Energy of the "Second Quantum" - Yu. I. Kiryukhin, Z. A. Sinitsyna, and Kh. S. Bagdasar'yan ..	545	879
Mechanism of the Photochemical Interactions of Ferric Chloride with Olefins - A. I. Kryukov, S. Ya. Kuchmii, A. V. Korzhak, and Z. A. Tkachenko	548	882
Possibility of Using the Electromotive Force Method to Determine the Temperature Ranges of Existence and Principal Thermodynamic Characteristics of Salt Crystal Hydrates - V. V. Maloshuk and E. A. Anan'eva	552	886
Hydrogenation of Symmetrical Ketones under Hydrogen Pressure on Ruthenium Catalyst - D. V. Sokol'skii, A. M. Sokol'skaya, and A. I. Lyashenko	556	889
Calculation of Bond Dipole Moments in Tertiary Arsines and Their Oxides and Sulfides - B. D. Chernokal'skii, A. S. Gel'fond, F. Yu. Akhmadullina, and Yu. G. Galyametdinov ..	560	893
UV Spectra of Thiophosphoryl Compounds - R. R. Shagidullin, A. V. Chernova, I. A. Nuretdinov, G. M. Dorozhkina, and E. V. Bayandina	564	897
Magnetochemistry of New Thiosemicarbazonato Complexes of Fe(III) - A. V. Ablov, V. V. Zelensov, V. I. Shipilov, N. V. Gérébéleu, and Ch. V. Dyatlova	567	1115
Complex Formation of Polybutadienyl-, Polyisoprenyl-, and Poly-trans-1,3-pentadienyl- lithium with Ethers - A. N. Genkin and V. G. Moiseeva	570	1118
Structure of Binuclear Complexes with Participation of N ₂ and O ₂ - I. B. Golovanov, V. M. Sobolev, and M. V. Vol'kenshtein	574	1122
Identification of Subsites and Manifestation of an Ordered Distribution of Cations in Ca _{1-x} Fe _{1+x} Ge ₂ O ₈ Germanates According to Data of Mössbauer Spectroscopy - S. P. Ekimov, L. P. Nikitina, R. G. Grebenshchikov, L. M. Krizhanskii, O. G. Chigareva, and V. V. Motsartov	578	1126
Charge Transfer in Olefin-Halogen Complexes - Ya. M. Kimelfel'd, A. B. Mostovoi, and L. M. Mostovaya	582	1130
Mechanism of Photochemical Reduction of Titanium(IV) Compounds in Alcoholic Solutions - A. I. Kryukov, S. Ya. Kuchmii, A. V. Korzhak, and Z. A. Tkachenko	586	1134
Use of the Method of Overlapping Integrals to Describe the Reactivity of Organophosphorus Compounds - B. N. Laskorin, V. V. Yakshin, and B. N. Sharapov	590	1138
Stationary Coagulation and Particle-Size Distribution of Atmospheric Aerosols - A. A. Lushnikov and V. I. Smirnov	593	1141
Electrochemical Method of Determining the Thermodynamic Constants of Compounds of the Rare-Earth Elements - V. V. Maloshuk and V. N. Lobanov	598	1145
Thermodynamic Investigation of Thermal Dissociation Processes of Samarium Ultra-, Meta-, and Orthophosphates - I. A. Rat'kovskii, A. V. Lavrov, V. A. Ashuiko, V. P. Orlovskii, and T. V. Belyavskaya	601	1148

Anomalous Dependence of Americium(III) Complexes and Complexes of Other Me(III) with Diphosphine Dioxides on Their Structure - A. M. Rozen, Z. I. Nikolotova, N. A. Kartasheva, and K. S. Yudina	604	1151
Kinetic Characteristics of the Low-Temperature Crystallization of Polymers - B. Ya. Teitel'baum	608	1155
Influence of pH of Solution on the State of Surface of a Platinized Platinum Electrode - A. N. Frumkin, O. A. Petril, and T. Ya. Kolotyrkina-Safonova	612	1159
Mass Spectrometry of the Negative Ions of Alkenylsilane Derivatives - I. I. Furlet, V. P. Yur'ev, V. I. Khvostenko, G. A. Tolstikov, and S. R. Rafikov	616	1163
Role of Heterogeneous Factors in the Investigation of Elementary Reactions of Oxygen Atoms with Hydrogen Bromide - V. P. Balakhnin, A. P. Dement'ev, V. I. Egorov, and V. N. Kondrat'ev	619	1353
Radiation Hardening of Oligocarbonatomethacrylates. Diethyleneglycol bis-Methacryloxyethylenecarbonate (OCM-2) - I. M. Barkalov, A. A. Brikenshtein, V. I. Gol'danskii, D. P. Kiryukhin, V. M. Mumikhes, and A. A. Radugina	623	1357
Triplet Absorption and Lasing of Vapors of Complex Organic Compounds - N. A. Borisevich, L. M. Bolot'ko, and V. A. Tolkachev	627	1361
Analysis of Solvated-Electron Spectra - A. M. Brodskii and A. V. Tsarevskii	631	1365
Thermodynamic Parameters of Some Cyclic and Bridged Carbosilanes - Z. A. Guseinov, K. A. Karasharli, O. I. Dzhaifarov, G. G. Nurullaev, N. S. Nametkin, L. E. Gusein'nikov, É. A. Volnina, E. N. Burdasov, and V. M. Vdovin	634	1369
Photocatalytic Properties of Beryllium Oxide. Photoactivated Homomolecular Oxygen Exchange - V. N. Kuznetsov, A. A. Lisachenko, and F. I. Vilesov	637	1373
Electroosmotic Study of the Boundary Layers of a Liquid - Z. M. Petrova and S. V. Nerpin	640	1377
Dynamic Quenching of the Fluorescence of Aromatic Compounds in Solid Solutions by Electron Acceptors - N. A. Sadovskii and M. G. Kuz'min	643	1380
The Epitaxial Growth of Diamond from Methane at Atmospheric Pressure - P. A. Tesner, A. E. Gorodetskii, E. V. Denisevich, A. P. Zakharov, and T. V. Tekunova	647	1384
Solid Solutions in the Y_2O_3 - Pr_2O_3 System, and Their Morphotropy - P. A. Tikhonov, K. Yu. Merezhinskii, and A. K. Kuznetsov	650	1387
Spectral-Kinetic Characteristics of 2-(4'-Dimethylaminophenyl)indane-1,3-dionyl Radicals - I. V. Khudyakov, L. M. Pisarenko, A. B. Gagarina, V. A. Kuz'min, N. M. Émanuél	653	1390
Dielectric Relaxation in Liquid Crystalline α -Cyanostilbene - V. N. Tsvetkov, A. P. Kovshik, E. I. Ryumtsev, I. P. Kolomiets, M. A. Makar'ev, and Yu. Yu. Daugvila	656	1393

Volume 223, Numbers 1-3 July, 1975

A Quantitative Study of the Elementary Gas Phase Reaction of Atomic Oxygen (3P) with Deuterium Bromide - V. P. Balakhnin, A. P. Dement'ev, and V. I. Egorov	661	108
Propagation of Activity Waves over the Surface of a Catalyst - V. V. Barelko and Yu. E. Volodin	665	112
Mechanism of the Effect of Polyethylene Oxide on the Electrokinetic Potential and Surface Charge of Certain Colloidal Precipitates - E. V. Eremenko, A. A. Baran, and B. É. Platonov	669	116
Certain Features of the Synergistic Mechanism in the Action of Mixtures of Inhibitors in Breaking Oxidation Chains and Decomposing Hydroperoxides - T. V. Zolotova, G. V. Karpukhina, Z. K. Maizus, and N. N. Émanuél	673	120
Describing the Liquidus Curves of A_mB_n Chemical Compounds - G. M. Kuznetsov, M. P. Leonov, A. S. Luk'yanov, V. A. Kovaleva, and M. P. Shapovalov	677	124

Investigation of Short-Lived Intermediate Products in the Photocoloration of Solutions of Spiropyrans - V. A. Kuz'min, Ya. N. Malkin, G. G. Dyadyusha, and F. A. Mikhailenko	679	127
Electron-Microscopic Investigation of the Pore Structure of Hardened Cement and of the Structure of Polymer-Concrete - V. M. Luk'yanovich, V. N. Kolyutskii, and A. N. Khodan	683	131
An Isotope Effect in Gamma-Irradiated Adsorbed Ammonia - T. G. Lyapina and A. G. Kotov.	687	135
Effect of Hydrogen Chloride on Dehydrochlorination of Poly(vinyl chloride) - K. S. Minsker, V. P. Malinskaya, M. I. Artsis, S. D. Razumovskii, and G. E. Zaikov.	689	138
Thermodynamic Characteristics of the Polymerization of Pyridine and Quinoline and Stabilization Energies of Polymers with a Conjugation System - L. I. Pavlinov, D. A. Topchiev, and V. A. Kabanov.	693	142
Structure and Magnetism of Fluorine-Oxygen Spinel Based on Lithium Ferrite - B. I. Pokrovskii, L. M. Vasil'eva, A. N. Goryaga, and N. V. Sterlikova.	697	146
Divalent Europium Niobium Oxide Bronzes - G. V. Bazuev, O. V. Makarova, and G. P. Shveikin.	700	358
Generation of Catalyst Activity - V. V. Barelko and Yu. E. Volodin.	703	362
Magnetic-Resonance Spectrometer Based on a CO ₂ Laser. Recording of the Absorption Spectra of the NF ₂ Radical in the Gas Phase - S. V. Broude, Yu. M. Gershenzon, S. D. Il'in, S. A. Kolesnikov, and Ya. S. Lebedev.	706	366
Determination of the Diffusion Coefficients of Adsorbents with a Biporous Structure - A. M. Voloshchuk, M. M. Dubinin, N. A. Nechaeva, and V. I. Ulin.	709	369
Nature of the H Groups in Alkaline-Earth Forms of Type Y Zeolites - V. G. Gvakhariya, V. I. Kvilivdze and G. V. Tsitsishvili.	713	373
Interaction of Copper and Antimony in a Solid Solution Based on Germanium - V. N. Glazov, A. Ya. Potemkin, and A. I. Kiselev.	717	377
NMR of Vanadium-51 in Heteropoly- and Isopolyanions - L. P. Kazanskii and V. I. Spitsyn.	721	381
ESR Study of the Reduction of Molybdovanadophosphoric Heteropoly Acids in Aqueous Solution - R. I. Maksimovskaya, M. A. Fedotov, L. I. Kuznetsova, V. M. Mastikhin, and K. I. Matveev.	725	385
Nature of Stable Radicals in Kaolinite - V. V. Mank, F. D. Ovcharenko, L. V. Golovko, N. G. Vasil'ev, and A. Ya. Karushkina.	729	389
Some Features of High-Temperature Oxidation Processes. The Electron Flow and Multistage Nature - A. V. Nikolaev, F. Ya. Gimel'shein, and V. S. Belkin.	733	393
Estimation of the Effect of Neighboring Groups in the Hydrolysis of Syndiotactic Polymethyl Methacrylate by Analysis of the Distribution of Units - N. A. Platé, L. B. Stroganov, T. Zeifert, and O. V. Noa.	735	396
Nature of the Interaction of a Catalytically Active Metal Phase with the Carrier - D. V. Soko'skii, V. L. Vinetskii, and I. V. Kel'man.	739	400
Quenching of Triplet States in Aromatic Hydrocarbons by Stable Nitroxyl Radicals - A. S. Tatikolov and V. A. Kuz'min.	742	403
Thermodynamic Characteristics of Intramolecular Charge-Transfer Complexes - I. V. Turovskii, Ya. F. Freimanis, Ya. Ya. Dregeris, and Ya. P. Stradyn'.	746	407
Study of the State of Divalent Copper in Oxide Catalysts by Diffuse Reflectance Spectroscopy - V. G. Shinkarenko, V. F. Anufrienko, G. K. Boreskov, K. G. Ione, and T. M. Yur'eva.	749	410
Kinetics and Mechanisms of the Hydroxylation of Benzene with Peroxy Acids - A. K. Yatsimirskii and I. V. Berezin.	753	414
Use of the Mössbauer Effect for Measuring the Short-Range Order Parameters in a Solid Solution - Sh. Sh. Bashkirov, G. D. Kurbatov, E. S. Makhnev, and V. A. Chistyakov.	757	622
Diffusion and Subbarrier Transitions in a Tunnel Mechanism for Electron Capture by Acceptor Molecules - Yu. A. Berlin.	760	625
Diffusion of Vibrationally Excited Molecules - Yu. M. Gershenzon, V. B. Rozenshtein, and S. Ya. Umanskii.	763	629

Destruction of Free Radicals in Adipic Acid at High Pressures — S. A. Dzyuba, V. A. Tolkachev, and A. I. Burshtein	767	633
Electronic Structure and Thermal Stability of Polyheteroarylenes — V. A. Kosobutskii, V. K. Belyakov, and A. A. Berlin	770	636
Electronic Structure of Metals and Its Role in Catalytic Processes — N. S. Lidorenko, A. A. Izmet'shev, I. G. Medvedev, and G. F. Muchnik	773	639
Catalytic Reaction of Electron Transport Occurring against the Gradient of a Standard Potential — V. G. Mairanovskii, N. F. Loginova, and I. A. Titova	776	643
Mechanism of 1,3-Dioxolane Polymerization under the Influence of $(C_2H_5)_3OSbCl_6$ and $SbCl_5$ — Z. N. Nysenko, E. L. Berman, E. B. Lyudvig, and V. A. Ponomarenko	780	647
Short-Range Order and the Character of Atomic Motion in Liquid Metals — V. A. Polukhin, M. M. Dzugutov, A. M. Evseev, B. R. Gel'chinskii, V. F. Ukhov, N. A. Vatolin, and O. A. Esin	783	650
Two Forms of Interrelation between the Limiting Deformation Parameters of Crystalline Polymers — S. B. Ratner, L. O. Bunina, I. M. Abramova, V. S. Bil', L. A. Zezina, L. G. Kazaryan, and E. V. Samardukov	786	653

Volume 223, Numbers 4-6

August, 1975

Difference in Rate Constants for Reactions of Unexcited and Vibrationally Excited Molecular Hydrogen — V. Ch. Bokun and A. M. Chaikin	791	890
Study of the Relation between the Rate of Crystal Growth and the Compositions of the Resulting Solid Solutions — V. T. Borisov, A. I. Dukhin, and G. I. Miroshnichenko	794	893
Effect of the Double-Layer Field on the Spectroscopic Properties of Iodide Ions Adsorbed on Silver — E. B. Brik, R. M. Lazorenko-Manevich, and Ya. M. Kolotyrykin	797	896
Solvent Transport by Ions in Liquid Electrolytes — A. Ya. Gokhshtein	801	900
Mechanism of Formation of Solid Solutions on the Introduction of Oxygen into the Lattice of Defect Carbides — Yu. G. Zainulin, S. I. Alyamovskii, and G. P. Shveikin	804	904
Dependence of Activity Coefficient on Electrolyte Concentration — V. P. Ionov and Yu. A. Zolotov	807	907
Possible Reason for the Decrease in Activation Energy in Catalytic Reactions Compared with Noncatalytic Reactions — V. B. Kazanskii and N. D. Chuvylkin	810	910
Description of Liquidus Surfaces of Multicomponent Chemical Compounds — G. M. Kuznetsov, V. V. Olenin, and M. P. Leonov	814	914
Correlation Analysis of the Dependence of the Spin-Spin Interaction Constants $J(^{29}SiH)$ in Organohydrosilane Molecules on the Effect of Substituents — V. P. Mileshekevich and N. F. Novikova	816	916
Electronic Structures of Azine and Hydrazone Molecules from Nuclear Quadrupole Resonance Data — D. Ya. Osokin, I. A. Safin, B. I. Buzykin, and Yu. P. Kitaev	820	920
Electronic Structure of the Membrane-Active Complexone 12-Crown-4 and Its Monoprotonated Form — K. B. Yatsimirskii, Yu. A. Kruglyak, and A. Yu. Posudievskii	823	924
X-Ray Investigation of the Short-Range Order Characteristics of Nickel-Germanium Alloys — Yu. A. Bazin, P. V. Gel'd, Ya. I. Dutchak, E. S. Levin, and M. S. Petrushevskii	826	1160
Electrical Resistivity of Lithium Orthosilicate — E. I. Burmakin, G. K. Stepanov, and I. G. Dubrovina	830	1165
Theory of Low-Temperature Chemical Reactions — M. A. Vorotyntsev, R. R. Dogonadze, M. G. Zakaraya, and A. M. Kuznetsov	832	1168
Effect of the Chemical Bond on the Photoionization Cross Section in a Region Remote from the Threshold Value — I. G. Kaplan and A. P. Markin	836	1172

Indirect Polarographic Estimation of the Effect of the Electrode Field on the Dissociation Constant of Weak Acids in the Vicinity of the Electrode — S. G. Mairanovskii and I. A. Palanuer	840	1176
Kinetics and Mechanism of the Reaction of Octyl β -Hydroxyethyl Sulfide with Propylene Oxide — A. D. Malievskii, V. V. Vintz, and N. M. Émanué'	844	1180
Phase Diagram of the Titanium—Chromium System — V. V. Molokanov, P. B. Budberg, and S. P. Alisova	847	1184
Heterogeneous Radical Mechanism for Hydroperoxide Decomposition and Hydrocarbon Oxidation in the Liquid Phase — Yu. D. Norikov, É. A. Blyumberg, M. D. Irmatov, and Sh. K. Bochorishvili	850	1187
Derivation of an Equation Describing the Kinetics of Tunnel Capture of Localized Electrons in a Matrix by an Acceptor and the Development of Its General Solution — Yu. A. Berlin	854	1387
Optical Activity of Centrosymmetric Crystals of Lead Molybdate $PbMoO_4$, Induced by an Electric Field (Electrogyration) — O. G. Vlokh, I. S. Zheludev, and I. M. Klimov	858	1391
Electrochemical Reduction of Fluorenone at Bismuth and Amalgamated-Gold Electrodes in Alkaline Solutions — L. N. Vykhodtseva and L. N. Nekrasov	861	1394
Semiconductor—Metal Phase Transition in Vanadium Oxygen Bronzes — V. K. Kapustkin, A. A. Fotiev, and V. L. Volkov	865	1398
Vibrational Spectra of Tetrakis(pentafluorophenoxy)silane and Methyl(pentafluorophenoxy)silanes — N. V. Kozlova, I. F. Kovalev, Yu. I. Khudobin, and M. G. Voronkov	868	1401
Study of the Protonation of Oxides of Organic Derivatives of Group Vb in Nitromethane — B. N. Laskorin, V. V. Yakshin, and L. I. Sokal'skaya	872	1405
Study of the Kinetics and Mechanism of the Liquid-Phase Hydrogenation of 1-Hexene on Platinum, with Control of the Catalyst Potential during the Reaction — D. V. Sokol'skii, T. O. Omarkulov, K. Kh. Nurgozhaev, T. K. Dzharikbaev, and A. M. Sokol'skaya	875	1409
Lewis Acids as Catalysts of the Homolysis of Hydroperoxides — V. M. Solyanikov, L. V. Petrov, and Kh. É. Kharlampidi	878	1412
ERRATA	880	

Volume 224, Numbers 1-3

September, 1975

The Critical Condition for a Thermal Explosion in Systems with Parallel Reactions — V. G. Abramov, D. A. Vaganov and N. G. Samoilenko	881	116
New Types of Phase Diagrams for Simple Binary Systems — I. L. Aptekar' and L. G. Isaeva	884	120
Acid—Base Properties of Monosubstituted Acetylene Derivatives — M. G. Voronkov, N. I. Shergina, V. B. Pukhnarevich, L. V. Sherstyannikova, L. I. Kopylova, and B. A. Trofimov	888	124
An Investigation of the Formation of Molecular Complexes between Olefins and Hydrogen Chloride at Low Temperatures Using the Positron Method — V. I. Gol'danskii, I. B. Kevdina, V. P. Shantarovich, and A. P. Shvedchikov	892	128
Effects of Substituents in the Mass Spectra of 1-Aryl-1-methyl-1-silacyclobutanes — V. G. Zaikin, V. F. Traven', N. V. Ushakov, É. D. Babich, L. E. Gusel'nikov, V. M. Vdovin, B. I. Stepanov, and N. S. Nametkin	895	131
Investigation of the Angular Distribution of Annihilation Photons in Benzol, Hexane and ortho-Xylol — E. A. Kuvaeva, V. A. Lopatin, An. N. Negmeyanov, and S. N. Kryukov ..	899	135
Studies on the Geometrical Configuration of Photoisomers of Carbocyanine Dyes — V. A. Kuz'min, A. M. Vinogradov, M. A. Al'perovich, and I. I. Levkoev	903	139

Use of Difference Interpolation to Analyze the Thermodynamic Properties of Polymers — L. I. Pavlinov, L. V. Papulova, E. A. Miroshnichenko, Yu. A. Lebedev, and A. E. Stepan'yan	906	143
ESR Spectrum of the 2-[p-(Dimethylamino)phenyl]indan-1,3-dionyl Free Radical — L. M. Pisarenko, L. I. Murza, A. B. Gagarina, A. I. Prokof'ev, and S. P. Solodovnikov ..	910	147
Variation in the Band Intensity Ratio of the Luminescence Spectra from Eu^{3+} , Sm^{3+} , Tb^{3+} , and Dy^{3+} Ions in Complexes as a Function of the Number of Coordinated Ligands — N. S. Poluektov, V. N. Drobyazko, S. B. Meshkova, S. V. Bel'tyukova, and L. I. Kononenko	913	150
Oxidation Kinetics of Saturated Hydrocarbons in the $\text{Pd(II)}-\text{H}_2\text{SO}_4$ and $\text{NO}_2^+-\text{H}_2\text{SO}_4$ Systems. Similarity in the Rate-Determining Steps of the Two Reactions — E. S. Rudakov, V. V. Zamashchikov, A. I. Lutsyk, and A. P. Yaroshenko	916	153
Critical Conditions for Thermal Explosion in Systems with Successive Reactions — V. G. Abramov, D. A. Vaganov, and N. G. Samoilenko	919	351
Determination of the Thermodynamic Activity of Carbon in Nickel—Chromium—Carbon Alloys — V. I. Alekseev and M. M. Parnis	922	355
Investigation of the Kinetics of the Heterogeneous Radical Decomposition of Peracetic Acid in the Gas Phase — G. O. Bagdasaryan, I. A. Vardanyan, and A. B. Nal'bandyan	926	359
Characteristic Features of Stress and Creep Relaxation of Oriented Polypropylene — E. B. Voronkov, I. V. Razumovskaya, I. N. Musaelyan, and G. L. Slonimskii	930	363
Kinetics of Autooxidation of β -Ionol Acetate — N. M. Evteeva, A. B. Gagarina, and N. M. Emanuel'	932	365
The Growth of Diamond Whiskers in an Electron Microscope — V. D. Zamozhskii and A. N. Luzin	936	369
Mass-Spectrometric Investigation of the Collisions of Metastable "Superexcited" Atoms of Potassium with Molecules of Methane and Deuteroethylene — S. E. Kupriyanov, V. N. Slavik, and A. A. Perov	941	373
Deactivation of Rotationally Excited Halogen Hydride Molecules — I. V. Lebed' and E. E. Nikitin	945	377
Capture of "Dry" Electrons by Oxygen Molecules in Liquid Hydrocarbons — L. V. Lukin and B. S. Yakovlev	949	384
Macroregion of Orientation in Nascent Particles of Polypropylene — L. A. Novokshonova, L. N. Raspopov, K. N. Russiyan, O. I. Kudinova, T. A. Maklakova, and F. S. D'yachkovskii	952	381
Effect of Temperature on Experimental Activation Energies — G. B. Sergeev, V. A. Batyuk, and B. M. Sergeev	955	387
Study of the Coupling of the Dehydrogenation of Isoamylene with Reactions of Hydrogen Consumption on a Palladium—Nickel Membrane Catalyst — V. S. Smirnov, V. M. Gryaznov, N. V. Orekhova, M. M. Ermilova, and A. P. Mishchenko	958	391
Electrokinetic Effects in Catalytic Ionic Polymerization — V. G. Shevchenko,	961	394
Magnetic Double Refraction in Poly(para-benzamide) Solutions — V. N. Tsvetkov, G. I. Kudryavtsev, E. I. Ryumtsev, V. Ya. Nikolaev, V. D. Kalmykova, and A. V. Volokhina	965	398
Packing of Macromolecules in Polymers and the Glass Point — A. A. Askadskii, G. L. Slonimskii, Yu. I. Matveev, and V. V. Korshak	969	612
Microsecond and Nanosecond Impulse Photolysis of Carbazoles. Two-Quantum Reaction in a Liquid Medium — V. A. Borovkova, Kh. S. Bagdasar'yan, V. F. Pikel'ni, V. A. Kolosov, and Yu. I. Kiryukhin	973	616
Investigation of Immobilized Cytochrome c by Spectroscopic and ESR Methods — M. V. Genkin, R. M. Davydov, D. Sh. Burbaev, and L. A. Blyumenfel'd	977	620
Catalytic Reduction of Copper(II, I) by Carbon Monoxide in Alkaline Medium — V. A. Golodov, D. V. Sokol'skii, and Sh. A. Titova	980	623

Analysis of the Modes of Progress of Reaction in Emulsion Polymerization Using the Quasistationary Approximation - V. V. Kafarov, I. N. Dorokhov, and L. V. Dranishnikov	984	627
Direct IR Spectroscopic Proof of Free-Radical Desorption during the UV Irradiation of Solids in Vacuum - A. K. Mal'tsev, N. D. Kagramanov, and O. M. Nefedov	987	630
Thermodynamic Parameters of the Reaction between Components in Oligomer Mixtures A. E. Nesterov, Yu. S. Lipatov, and T. D. Ignatova	990	634
Pulsed Radiolysis of Aqueous Solutions of Compounds of Divalent Mercury - A. K. Pikaev, G. K. Sibirskaya, and V. I. Spitsyn	994	638
Influence of Conjugation of an Unsaturated Bond with the Phenyl Group on the Reactivity of 1-Phenylcyclohexene in the Process of Oxidation - V. L. Rubailo, A. B. Gagarina, and N. M. Émanuéľ'	998	642
Absolute Values of the Rate Constants for the Reaction of Inhibitors with Peroxide Radicals - I. F. Rusina	1001	646

Volume 224, Numbers 4-6

October, 1975

Change in Efficiency of Heterogeneous Recombination as a Result of Reactions of the Recombining Particles - V. V. Azatyan, A. A. Shavard, B. L. Gussak, and E. I. Intezarova	1005	841
Investigation of the Thermodynamic Properties of Manganese Phosphide Mn_3P - I. B. Baratashvili, A. A. Nadiradze, I. A. Makharadze, and L. A. Shvartsman	1008	844
Construction of a Valence-Optical Scheme for Azoles - S. B. Bulgarevich, O. A. Osipov, V. S. Bolomikov, T. V. Lifintseva, V. N. Sheinker, and A. D. Garnovskii	1011	847
Reliability Functions in Fermentation Catalysis - S. D. Varfolomeev and I. V. Berezin	1015	851
The Possibility of Continuous Solvation of the Transition State of Chemical Reactions in Binary Solvents - V. A. Gorodyskii and A. A. Morachevskii	1019	855
Interaction of Methane with Complex Catalysts - É. A. Grigoryan, F. S. D'yachkovskii, and I. R. Mullagaliev	1023	859
Kinetics and Mechanism of the Oxidative Degradation of Polydimethylsiloxane Rubbers - É. B. Zeinalov, V. F. Tsepalov, and G. P. Gladyshev	1026	862
Geometric Isomerism in Heteropolyanions - L. P. Kazanskii, M. A. Fedotov, M. N. Prushkina, and V. I. Spitsyn	1029	866
Mathematical Model of Heterophase Emulsion Polymerization - V. V. Kafarov, I. N. Dorokhov, and L. V. Dranishnikov	1032	869
The Reactivity and Intramolecular Mobility of Macromolecules in Solution - M. G. Krakovyak, E. V. Anufrieva, M. V. Vol'kenshtein, T. D. Anan'eva, Yu. Ya. Gotlib, R. A. Gromova, S. P. Kozel, G. I. Lashkov, V. B. Lushchik, V. D. Pautov, S. S. Skorokhodov and T. V. Sheveleva	1036	873
High-Temperature Oxidation of Geksanit-R - V. A. Lavrenko, T. G. Protzenko, A. V. Bochko, V. L. Primachuk, E. S. Lugovskaya, A. F. Alekseev, and I. N. Frantsevich	1039	877
Interaction of Chemisorbed Particles with Dislocations - A. N. Latyshev, M. I. Molotskii, and K. V. Chibisov	1042	880
Reaction Rate Constants for Chain Extension and Chain Breaking in Liquid-Phase Oxidation of 1-Phenylcyclohexene - V. L. Rubailo, A. B. Gagarina, and N. M. Émanuéľ'	1045	883
Activation of the Carbonyl Bond of Ketones in Reactions of Hydrogenation - D. V. Sokol'skii, V. F. Vozdvizhenskii, A. Sh. Kuanyshv, and A. I. Lyashenko	1049	887
"Solid" Effects in Multiple-Pulse NMR Experiments on Liquid-Phase Polymers - V. D. Fedotov and V. M. Chernov	1053	891
Kinetics of the Reactions of Chain Branching and Chain Termination in the Decomposition of Nitrogen Trichloride - V. V. Azatyan, R. R. Borodulin, E. A. Markevich, N. M. Rubtsov, and N. N. Semenov	1057	1096

Refinement of Ideas Regarding the Mechanism of the Migration of Intercrystallite Boundaries — V. I. Arkharov, V. I. Krysov, and T. I. Malyuk	1061	1100
³⁵ Cl NQR Spectra of N-(β , β -Dichlorovinyl)amides of Monocarboxylic Acids and an LCAO-MO Calculation of the NQR Frequencies of N(β , β -Dichlorovinyl)acetamide — M. G. Voronkov, V. P. Feshin, A. N. Mirskova, N. I. Berestennikov, and B. A. Shainyan	1064	1103
Wetting of Solid Electrodes — A. Ya. Gokhshtein	1067	1107
State of the Water in a Synthetic Layer Silicate — V. V. Mank, S. P. Suleimanov, F. D. Ovcharenko, and N. G. Vasil'ev	1070	1111
Determination of the Reaction Volume for the Macroradical Recombination Reaction in the Polymerization of Tetrafluoroethylene — V. P. Mel'nikov, A. I. Mikhailov, A. M. Markevich, and V. I. Gol'danskii.	1074	1115
The Form in which Hydrogen is Introduced into the Structure of Various Zeolite Catalysts of Type Y — M. M. Selim, S. P. Gabuda, A. A. Panich, Z. V. Gryaznova, and N. K. Moroz.	1078	1119
Investigation of T-x-y Projection of P-T-x-y Phase Diagram for Pb-Sn-Te System — M. E. Tamm, V. P. Zlomanov, and A. V. Novoselova.	1081	1122
Dynamic Birefringence and the Rigidity of Polyparabenzamide Molecules in Solution — V. N. Tsvetkov, G. I. Kudryavtsev, I. N. Shtennikova, T. V. Peker, É. N. Zakharova, V. D. Kalmykova, and A. V. Volokhina.	1085	1126
Three-Component Solid Solutions Based on the Compound Nb ₃ Al — V. F. Shamrai and A. M. Postnikov	1089	1130
Some Features of the Kinetics of Anionic Polymerization of Styrene in Aliphatic Solvents — R. V. Basova, V. S. Glukhovskoi, A. A. Arest-Yakubovich, A. R. Gantmakher, and B. A. Dolgoplosk.	1092	1327
A Method of Calculating the Energies of Atoms and Molecules — Yu. A. Borisov	1094	1330
Orbital Nature of Transitions Responsible for the Long-Wave Absorption and Fluorescence of Poly(Schiff's bases) — N. A. Vasilenko, R. N. Nurmukhametov, and A. N. Pravednikov	1098	1334
Thermodynamic Properties of Nonstoichiometric Terbium Sesquioxide at High Temperatures — I. A. Vasil'eva, Ya. I. Gerasimov, and A. F. Malorova	1102	1338
Complex Formation of Ions of the Iron Group in Aqueous Solution of Polyethylene Oxides — B. I. Verkin, V. A. Moiseev, O. A. Nardid, and N. S. Pushkar'	1105	1341
Calculation of Multicomponent Equilibria — Ya. Kh. Grinberg, V. B. Lazarev, and S. I. Épshtein	1108	1345
Investigation of Copper-Magnesium Oxide Catalysts by Means of X-Ray Electron Spectroscopy — P. A. Zhdan and G. K. Boreskov.	1111	1348
Influence of Gas Adsorption on Electrophysical Properties of Oxides Activated with Metals — I. V. Miloserdov and I. A. Myasnikov	1114	1352
Mass-Spectrometric Investigation of the Evaporation of Sodium Tungsten Bronzes of Different Compositions — V. I. Spitsyn, R. M. Nifant'eva, M. P. Glazunov, and T. I. Drobacheva	1118	1356
The Effect of Hyperconjugation of the Methyl Group in 12-Carboranes — V. I. Stanko, Yu. V. Gol'tyapin, V. K. Pavlovich, and G. L. Gal'chenko	1122	1360
Influence of the Surface on the Ratio of Peroxide Radicals in the Thermal Oxidation of Methane — L. A. Khachatryan, E. M. Kegeyan, O. M. Niazyan, I. A. Vardanyan, A. A. Mantashyan, and A. B. Nalbandyan	1125	1363
Dynamic Double Refraction and Conformation of Molecules of Polymetaphenylenisophthalamide in Solutions — V. N. Tsvetkov, É. N. Zakharova, and N. A. Mikhailova	1127	1365
Epoxidation of Allyl Chloride with Tert-Butyl Hydroperoxide in the Presence of Metallocomplex Catalysts — K. B. Yatsimirskii, V. M. Belousov, A. P. Filippov, L. A. Oshin, S. B. Grinenko, G. A. Konishevskaya, G. A. Shakhovtseva, B. E. Krasotkina	1131	1369

X-Ray Structural Investigation of Beryllium Dioxooctaacetate — L. O. Atovmyan, O. N. Krasochka, A. I. Grigor'ev, and V. A. Sipachev	1135	99
Chain Transfer to Polymer by Initiator Radicals during the Succinyl Peroxide-Initiated Oligomerization of 1,3-Butadiene — E. N. Barantsevich, V. P. Kartavykh, V. I. Valuev, and R. A. Shlyachter	1137	101
Biochemical Fuel Cells. Hydrogenase as a Catalyst of the Oxidation of Hydrogen in the Mediator—Carbon Electrode System — I. V. Berezin, S. D. Varfolomeev, A. I. Yaropolov, V. A. Bogdanovskaya, and M. R. Tarasevich	1141	105
Effect of the Surface Diffusion of a Surfactant on Capillary Absorption — V. V. Berezhin, B. V. Deryagin, Z. M. Zorin, N. V. Frolova, and N. V. Churaev	1145	109
ESCA Investigation of Chemisorption and Decomposition of NO on Iron — G. K. Borekov and P. A. Zhdan	1148	112
Calculation of the Tunneling Factor for the Electrochemical Desorption of Hydrogen — M. A. Vorotyntsev and G. M. Chonishvili	1152	116
Combustion of a Hydrogen Cloud Rising in Air — V. A. Gorev, P. A. Gusev, and Ya. K. Troshin. Electron-Microscope Study of the Formation of Bayerite and γ -Alumina — M. I. Dashevskii, V. I. Yakerson, and A. M. Rubinshtein	1156	120
Nature of the Activation of Molecular Nitrogen in Complexes — I. I. Zakharov, V. I. Avdeev, and A. I. Boldyrev	1159	123
Effect of Additions of Sodium on the Structure of Silumin Melts — V. I. Mazur, V. S. Savel'ev, and Yu. N. Taran	1162	126
Mössbauer Spectroscopic Study of the Electronic State of Iron in an Iron—Molybdenum Catalyst during the Oxidation of Methanol — Yu. V. Maksimov, I. P. Suzdalev, V. I. Gol'danskii, A. I. Matveev, E. F. Makarov, and L. Ya. Margolis	1165	130
Kinetics for Chemical Reactions in Condensed Media Taking into Account the Spatial Heterogeneity and Diffusion — I. M. Movshovich and Yu. A. Ershov	1168	133
Irradiation of Polyisoprene in Solution — S. V. Novikov, V. S. Sobolev, and V. F. Evstratov. . . .	1172	137
Use of the Method of Correlation Diagrams to Analyze Elementary Acts in Solid-Phase Reactions — G. G. Savel'ev	1176	141
Reduction of the Persulfate Anion in Dimethyl Sulfoxide — N. V. Fedorovich, M. D. Levi, B. B. Damaskin, and A. V. Shlepakov	1179	144
Experimental Values of the Pre-Exponential Factors of the Rate Constants for Some Liquid- and Gas-Phase Radical Substitution Reactions — V. F. Tsepalov, A. A. Kharitonova, and G. P. Gladyshev	1183	148
Kinetic Laws Governing the Liquid-Phase Oxidation of Hexafluoropropylene — P. I. Valov, N. I. Moiseeva, L. F. Sokolov, S. V. Sokolov, and É. A. Blyumberg	1186	152
Generation of High-Energy Electrons during the Destruction of Solids — J. Wollbrandt, Yu. A. Khrustalev, E. Linke, N. A. Krotova, and B. V. Deryagin	1190	338
Photopolymorphism of Anthracene — A. E. Galashin and E. A. Galashin	1194	342
Dependence of the Activity Coefficients on the Concentration of the Metal Bromides and Iodides — V. P. Ionov and Yu. A. Zolotov	1197	345
Paramagnetic Centers in γ -Irradiated Single Crystals of Yttrium Aluminum Garnet at Low Temperatures — L. G. Karaseva, E. I. Saunin, V. V. Gromov, and V. I. Spitsyn	1201	349
Effect of Coordination of the Cation with the Electron Donor Atom of the Substituent in the Carbanion in the Determination of the Equilibrium Ch-Acidity — T. I. Lebedeva, É. S. Petrov, M. I. Terekhova, and A. I. Shatenshtein	1204	353
Absolute Efficiency of the Two-Quanta Sensitized Decomposition of Benzylamine — Z. A. Sinitsyna, Yu. I. Kiryukhin and Kh. S. Bagdasar'yan	1208	357
Spin-Label Investigation of the Microstructure of Poly(Glycidyl Methacrylate) Solutions	1212	361

- A. Yu. Shaulov, M. A. Yan'kova, A. M. Vasserman, A. B. Shapiro, and and N. S. Enikolopyan	1215	364
Relationship between the Polarity and Polarizability Parameters of Several Axially Symmetric Molecules - S. G. Vul'fson and A. N. Vereshchagin	1219	593
Vibrational Structure in the X-Ray Emission and Absorption Spectra of Molecules - F. Kh. Gel'mukhanov, L. N. Mazalov, A. V. Nikolaev, A. V. Kondratenko, V. G. Smirnyi, P. I. Vdash, and A. P. Sadovskii	1223	597
Electrostatic Interactions for Two Semifinite Media, Taking into Account the Discreteness of the Surface Charges - B. V. Deryagin, and V. M. Muller	1227	601
Thermochemical Investigation of the Interaction of Epoxide Compounds with Primary Amines - V. P. Kuznetsova, G. V. Rakova, E. A. Miroshnichenko, Yu. A. Lebedev, and N. S. Enikolopyan	1231	605
Criteria for Evaluating the Temperature for the Superconducting Transition for Chemical Elements and Compounds with a Structure A15 - K. A. Osipov	1235	609
Spin Detonation in a Heterogeneous System of the Gas-Film Type - A. V. Pinaev and V. V. Mitrofanov	1239	613
Role of Cyclohexenyl Hydroperoxide and Its Oxidative Conversions in the Oxidation of Cyclohexene - V. L. Rubailo, A. B. Gagarina, and N. M. Émanué'l	1243	617
Deformation of Silicon Crystal Lattice by Bombardment with Boron and Oxygen Ions - I. N. Smirnov	1247	621
Influence of the Composition of Buffer Solutions on the Hydrogenation of 1-Hexene and 1-Hexyne - D. V. Sokol'skii, É. M. Tsai, S. A. Ryabinina, and V. V. Shoshenkova	1250	624
Annihilation of Positrons and Structural Defects in Synthetic Graphite - V. I. Spitsyn, G. M. Bartenev, I. I. Bardyshev, A. I. Lutkov, and A. D. Tsyganov	1254	628
Liquid-Crystal State in Monomeric and Polymeric N ^α -Acyl Derivatives of N ^ε -Methacryloyl-L-lysine - V. P. Shibaev, R. V. Tal'roze, F. I. Karakhanova, A. V. Kharitonov, and N. A. Platé	1258	632

Volume 225, Numbers 4-6

December, 1975

Autocatalytic Acceleration of the Slow F ₂ + D ₂ (H ₂) Reaction in the Presence of O ₂ in Quartz Vessels - V. Ya. Agroskin, G. K. Vasil'ev, V. I. Kir'yanov, E. F. Makarov, and Yu. A. Chernyshev	1261	830
Thermodynamics and Kinetics of the Radical Polymerization and Copolymerization of an Oligovinylsiloxane - K. A. Andrianov, M. A. Melomed, V. P. Roshchupkin, and V. G. Korolev	1264	834
Photoelectrochemical Oxidation of Water on Single Crystals of Rutile and Zincite - A. N. Asanov	1268	838
Study of the Kinetics of Ligand Exchange by the Paramagnetic Shifts Induced by Lanthanide Shift Reagents - V. A. Bidzilya, N. K. Davidenko, L. P. Golovkova, and K. B. Yatsimirskii	1272	842
Heterogeneous-Homogeneous Deep Oxidation of Benzene on Aluminum-Platinum Catalysts - A. S. Dryakhlov and S. L. Kiperman	1275	846
Interrelationship between the Nature of Defect Formation and Reactive Diffusion Mechanisms in the Solid-Phase Synthesis of Complex Oxides - V. M. Zhukovskii, E. V. Tkachenko, A. Ya. Neiman, and A. N. Petrov	1279	850
Calculation and Interpretation of Vibrational Spectra of Methylbromogermanes - I. F. Kovalev, V. S. Dernova, V. I. Anoshkin, M. D. Él'kin, and M. G. Voronkov	1282	854

Influence of I^- Ions on the Ionization of Bismuth — Ya. M. Kolotyrlin, V. V. Gorodetskii, A. P. Bukin, and V. V. Losev	1285	858
Determination of the Dissociation Constant of the $MgSO_4^0$ Ion Pair in the Temperature Range from 25 to 90°C — O. I. Martynova, L. G. Vasina, and I. S. Krotova	1289	862
Manifestation of the Δg -Mechanism of the Influence of the Magnetic Field in the Reaction between Decafluorodiphenylchloromethane and Butyllithium — A. V. Podoplelov, R. Z. Sagdeev, T. V. Leshina, Yu. A. Grishin, and Yu. N. Molin	1293	866
Properties of Charged Filtering Materials of Petryanov Filters — S. I. Popov, and I. V. Petryanov	1295	868
Liquid Junction Contribution to the emf of the Galvanic Cell — V. A. Rabinovich	1298	871
Kinetic Equations for Cyclohexene Consumption upon Autoxidation — V. L. Rubailo, A. B. Gagarina and N. M. Émanuél'	1302	875
X-Ray Diffraction Study of Dimethylammonium-bis(dimethylamino)carbonium Tetrachloromanganate — A. V. Uvarov, A. I. Gusev, V. D. Sheludyakov, and E. A. Budreiko	1305	879
Physicochemical Properties of the 4-Methoxy-2,6-Diphenylphenoxy Radical and Its Dimer — I. V. Khudiyakov, V. A. Kuz'min, G. Khageman, and K. de Jonge	1308	882
Vibrational Spectra and Structures of Trialkyl Selenophosphates — R. R. Shagidullin, I. I. Vandyukova, I. A. Nuretdinov, and Kh. Kh. Davletshina	1311	886
Study of Crystals Based on ZrO_2 (TiO_2) and Oxides of the Rare-Earth Elements Obtained by the Hydrothermal Method — L. G. Shcherbakova, A. N. Lobachev, V. A. Kuznetsov, V. B. Glushkova, and G. E. Sukhanova	1315	890
Electric-Conductivity Zone During Detonation of Condensed Explosives — A. G. Antipenko, A. N. Dremín, and V. V. Yakushev	1318	1086
Oxidation of Low-Valency Intermediate Species during the High-Speed Anodic Dissolution of Chrome-Nickel Alloys in Chloride Solutions — O. A. Arzhintar', A. I. Dikusar, and Yu. N. Petrov	1321	1089
Vector Form of the Condition for Phase Equilibrium in a System of q Components and Variational Conode Principle for the T-P-x Diagram — A. M. Gaidukov, A. L. Udovskii, and O. S. Ivanov	1325	1093
Equation of the Liquidus Curve for Primary Crystallization of a Congruent Melting Compound A_mB_n in a Regular Solution System — V. M. Glazov, L. M. Pavlova, and N. A. Moskvina	1328	1096
Two-Stage Character of the Reaction of Chain Growth in the Polymerization of Olefins on Complex Catalysts — N. D. Zavorokhin, V. V. Belyaev, O. A. Temkin, B. A. Zhubanov	1332	1100
Reactivity of Solvated Electrons in Irradiated Melts of Alkali Metal Halide Compounds — I. E. Makarov, T. N. Zhukova, and A. K. Pikaev	1335	1103
Theory of Transfer Processes in a Porous Medium. The Method of Natural Coordinates — Yu. A. Popov, Yu. V. Alekseev, and Ya. M. Kolotyrlin	1338	1107
Determination of the Rate of Chain Initiation in the Autooxidation of Cyclohexene — V. L. Rubailo, A. B. Gagarina, and N. M. Émanuél'	1342	1111
Interaction of Zirconium Hydroxide and Ion-Exchange Resins — A. I. Ryabinin, Yu. A. Afanas'ev, V. P. Eremin, V. T. Panyushkin, and N. N. Bukov	1346	1115
Luminescence and Adsorption in the Rearrangement of a Fresh Cleavage Surface of Quartz — A. N. Streletskii and P. Yu. Butyagin	1349	1118
Mechanism and Yield of Luminescence and Electron Emission in the Elementary Acts of Heterogeneous Chemical Reactions — V. V. Styrov	1352	1121
Statistical Model for the Structure of Network Polymers — V. A. Topolkaraev, V. G. Oshmyan, A. A. Berlin, A. N. Zelenetskii, E. V. Prut, and N. S. Enikolopyan	1355	1124

Influence of Electronic Substituent Effects on the Intensity of the $\nu_{C \equiv C}$ and ν_{Csp-H} Vibrations in the IR Spectra of Monosubstituted Acetylenes — N. I. Shergina, L. V. Sherstyannikova, V. B. Pukhnarevich, L. I. Kopylova, B. A. Trofimov, and M. G. Voronkov	1359	1128
Mechanism of the Light-Protective Action of Sterically Hindered Piperidines — V. Ya. Shlyapintokh, V. B. Ivanov, O. M. Khvostach, A. B. Shapiro, and É. G. Rozantsev	1362	1132
Degradation Time of Heat-Resistant Polymers — E. B. Brun, S. I. Kuchanov, and G. P. Gladyshev ..	1365	1339
Kinetics of Adsorboluminescence — V. I. Vladimirova, A. N. Il'ichev, Yu. N. Rufov, and B. P. Shub.	1369	1343
Evaluation of the Degree of Dissociation of Complex Compounds from the Curvature of the Liquidus in the Approximation of Regular Solutions — V. M. Glazov and L. M. Pavlova.	1372	1347
Influence of Solvent on the Quenching of Triplet States of Aromatic Hydrocarbons by Nitroxyl Radicals — V. A. Kuz'min, A. S. Tatikolov, É. G. Rozantsev, and V. I. Suskina	1376	1351
Relationship between the Osmotic Coefficients and the Parameters of the Quadratic Equation for the Activity Coefficients of Electrolytes in Triple Solutions — G. P. Lepnev ...	1379	1354
The $H_5O_2^+$ Ion in the Vibrational Spectra of Aqueous Solutions of Strong Acids — N. B. Librovich, V. D. Maigorov and V. A. Savel'ev	1383	1358
Experimental Study of the Absorbing Power of Synthetic Air-Dry Aluminum and Iron Hydroxides — V. A. Tenyakov, M. G. Édlin and L. A. Mel'nikova	1386	1362
Isoconcentrational Phase Changes in Binary Gas-Liquid Mixtures — I. A. Yurichev	1389	1366
Stabilizing Effect in Polyvinyl Chloride: Polymethyl Methacrylate Mixtures on Their Destruction and Breakdown — S. B. Ratner and V. P. Yartsev	1392	1369
INDEX		
Author Index, Volumes 220-225, 1975.	1397	
Tables of Contents, Volumes 220-225, 1975	1405	

